ABSTRACT OF A

Clinical Lecture

ON A

CASE OF CHOREA WITH HEMIPLEGIA.

Delivered at the Westminster Hospital,

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CAROLINE C——, a domestic servant, twenty-one years of age, was admitted into the hospital in a condition of grave prostration, with a temperature of 102°, a drying tongue, and an extensive but superficial sore over the sacrum. When put to bed it was observed that the face was in violent and continual movement, the tongue likewise being very unsteady and protruded with difficulty. The patient was confused in mind and unable to give any connected account of herself. She answered questions, however, more or less pertinently, but with great difficulty of utterance of the choreic kind. She moaned and cried out so as to disturb the ward, and her arms were restlessly thrown about. There was extreme tenderness above the elbows, the girl crying out upon slight touch. The urine was of high specific gravity (1030), and contained at first a trace of albumen. Large bronchial râles were heard over the chest; the heart-sounds very feeble and indistinctly heard.

The account of the patient, derived chiefly from her mother, was shortly this: that in childhood she had twice had chorea, severely affecting both face and limbs, and that in December last, while in service, she was laid up with rheumatism, apparently acute. Getting better of this, in about a month she was sent home. After six weeks' holiday she returned to her place and had now to carry a sick mistress daily up and down stairs, a service which she felt to be beyond her strength. She now began to suffer leg pains, and complained of weakness of the knees. A month before her admission she travelled with her employers from Brighton to London. After this journey, and while sitting at tea, she suddenly lost all power in the legs, and was carried to bed. The history at this period becomes obscure, the patient having little recollection of the time. It appeared, however, from the account of the woman who had attended her, that she had complained of pains in the limbs, with cough and restlessness, and had showed much agitation of the muscles of the face.

I shall mention very briefly such facts in the further progress of the case as have led me to call your attention to it. After two days' residence (during which, although not actively delirious, the patient was continually crying out, answering away from the purpose, and passing motions in bed, the bowels at the time being very loose) the extreme restlessness of the face became less. There now suddenly occurred a paralysis of the left orbicularis palpebrarum, and with this a complete lax paralysis of the right arm. There was no alteration in sensation, the early tenderness of the arms having disappeared. The tongue was still choreic, the pupils equal and active. Temperature 102·8°; pulse 102. The aspect and posture of the patient still indicated great bodily weakness. The bronchial signs remained; respiration between 35 and 40. The heart-sounds becoming more audible, a loud whirring systolic murmur was heard at the base, having certain peculiarities as to place, upon which I do not now dwell.

After a week of this condition, during which diarrhœa continued at intervals, no control was exercised over bladder or rectum, and, with an improved mental condition, the prostration was so extreme that brandy had to be given, the patient began to mend. The arm slowly recovered power, remaining for some time obviously weaker than the other. The orbicular paralysis also disappeared by degrees. The face and tongue, as has been mentioned, began to get steady when the palsy appeared, but it is to be observed of the tongue that it suffered a distinct relapse lasting but a few hours. On the tenth day after admission all signs of paralysis had disappeared, and the patient's natural manner, which was quiet and unexcitable, had returned. She was still very weak, with temperature over 100°, and pulse 120. The bronchitis still continued, and there were some special physical signs at the left apex indicative of commencing phthisis. With the final disappearance, however, of the nervous symptoms, and the progress of recovery so far that the girl was able to get up during a part of the day, the case comes to an end for the purpose for which I am relating it.

The occurrence of chorea in connexion with paralysis is always noteworthy, as furnishing material for determining doubtful questions of pathology. In a case like the present these two symptoms seem due to a common cause. If, therefore, the locality and something of the nature of a brain lesion causing the particular kind of paralysis that we observed may be fairly presumed, we get so much help towards determining the same points in regard to the chorea which accompanies it. It is, as you know, upon the evidence of cases of this sort that arguments as to the nature of chorea are mainly based. It is important, therefore, that in each instance the precise character and bearing of the facts should be duly scrutinised.

We see in this young woman an arm paralysis too real and complete to be called hysteric, yet of such short duration, and disappearing so rapidly, that no considerable brain injury can be assigned to it. Considering that the patient has had acute rheumatism, and that there still remains a rough systolic bruit at the heart's base, it seems highly probable that the evanescent palsy, with the pyrexia and delirium which accompanied it, was due to embolic plugging in the corpus striatum and its neighbouring convolutions. Such symptoms have by this time been often enough traced to such cause.

Those of you who are familiar with recent researches in cerebral localisation, and have followed Dr. Ferrier's Gulstonian lectures on that subject, will be ready probably to name the precise site of lesion in the present case. A brachial monoplegia, in which often the face concurs, is met with as a symptom of cortical injury implicating the ascending frontal convolution. Minute hæmorrhagic extravasations, vascular plugging, and other like accidents affecting the nutrition of the part, have been found post mortem in this connexion. That a paralysis thus caused should be temporary, even that it should not survive the immediate shock of the injury, is in perfect accordance with what we already know of such accidents. Here, then, we have chorea in just that association which is claimed for it—arising, that is, from a definite cerebral lesion which is productive of trophic change. Its physical basis is not, indeed, actually demonstrated (for this in the circumstances is rarely possible), but the conclusion to which the facts point cannot be questioned. Another observation is added to those already on record to rescue chorea from the hands of the metaphysicians.

Before conceding this altogether, let us consider the facts of our present case a little more closely. Observe, first, that the chorea anticipates the paralysis. By how long a time it precedes it is not quite clear. Having already had chorea twice, it is not remarkable that, with the incentive of overwork, and in convalescence from acute rheumatism, the same affection should return. It need not be denied that both the chorea and the arm paralysis which shortly followed it point to one and the same cerebral lesion. Nevertheless, the order of events must be kept in view, and it is this: facial chorea gives the first warning of cerebral change; incoherence of mind, pyrexia, and general prostration announce its actual advent; presently arm paralysis, taken together with valve disease and the rheumatic history, contributes something to determine the character of the injury. We must keep the phenomena in that order.

But, further, this face chorea takes the form of a general and extreme restlessness, which is noticed first while the patient is still sensible, and not acutely ill; and, having stopped once, it is suddenly revived again for a short time, and then finally ceases. Like all true chorea, it is not a spasm, but an exaggeration of natural movement. Moreover, there is nothing partial or one-sided about it; it affects the whole face. Of itself, therefore, this symptom would not help us to determine the precise place of the supposed brain lesion. With paralysis of the right arm arising from embolus or extravasation, we should have expected rather a paralysis, or perhaps spasm, of the right lower facial region. We get neither one nor the other, but the gradual subsidence of an already existing facial chorea, with a paralysis of the *upper* part of the face on the *left* side. We may accept, perhaps, this early arrival of chorea in virtue of the

patient's extreme susceptibility in this respect. Whether this be so or not, the facts are as I relate them, and, so presented, it is doubtful whether they lend quite the same support to the embolic or any similar theory of chorea, which at first sight they seem to do.

Assume that in this case we have some trophic change of the corpus striatum and of some convolutions functionally related to it; let it be from embolism or the separation of fibrin, or some misconduct on the part of the white corpuscles. When did that particular event occur? This girl is ill and weak; her legs fail, and she feels overworked; but she gets about, and is able to travel, in the ordinary way, fifty miles. Reaching home, she suddenly loses power, her face becomes more restless, and soon she is compelled to keep her bed altogether. When first seen by us, she is in high fever, with delirium and dangerous prostration. Here, surely, are circumstances which must compel the candid observer, with his general knowledge of the ordinary phenomena of multiple cerebral embolism or extravasation, or any like event, to fix the occurrence of such lesion at the time when the acute illness began; to regard the facial chorea, therefore, as anterior, not indeed to cerebral change of some kind or other, but to that period when such change had issue in a definite anatomical lesion. And, moreover, the chorea which is thus early excited is not so distributed to the muscles as to give notice of any precise seat of disturbance; it is a general affection of the face—a revival of that form of chorea which the girl has already suffered twice.

It is the same with other cases which might be quoted where paralysis has existed along with chorea, and where from that conjunction a definite brain lesion has been inferred or actually discovered after death. All such examples illustrate not chorea merely, but chorea and something besides. The same symptoms which, during life, afford extra help towards determining the morbid anatomy of chorea must be indicated after death by some mark of their own. This is true not only of paralysis, but of mania or delirium or pyrexia or true convulsion. These are not amongst the customary signs of chorea, but rare additions to it, and whenever they are met with some part or other of the morbid change must be credited, not to the chorea, but to them. We are, in fact, in this dilemma—that so long as chorea exists alone it furnishes no sufficient ground for asserting any such morbid change as anatomy could recognise; while, so soon as other symptoms are superadded, these so complicate the matter as to make the proper post-mortem signs of the simple affection extremely difficult of recognition.

The full stress of this difficulty will be felt the more when we come to reflect upon our everyday knowledge of the affection in question. There is not, in fact, any intimate connexion between chorea and paralysis. It is true, indeed, that these conditions do sometimes succeed one another, and the observation must have its weight. But what is by far the most common is for chorea to occur alone, leaving, it may be, a certain amount of muscular weakness, but this of a kind quite distinct from paralysis. Happening, as it usually does, in childhood, chorea implies hardly any peril whatever. To say that a child so affected stands in immediate danger from palsy or delirium, or that it is likely to exhibit any of those general signs of brain disturbance, such as vomiting or convulsion, so easily excited in childhood, is to contradict the experience of everyone. Even the unusual cases of chorea which get into print would not bear out so much.

We are left, therefore, to make out the pathology of chorea mainly from considerations of physiology, aided here and there by such doubtful and disfigured evidence as can be got from morbid anatomy. And we do, in fact, so construct it. From such knowledge as is given us of the functions of the brain, disordered muscular movement would seem to be best accounted for by some trophic fault in the corpus striatum. And, further, disordered movement of the elaborate and complicated kind that we have in chorea would seem to show that the higher centres were involved. We are told, indeed, that the neighbouring convolutions are, in fact, "the same centre with the corpus striatum raised to a higher power, representing the same muscles in more intricate combinations." Thus the parts concerned in chorea would be the same as are most frequently concerned in hemiplegia, but with a more direct involvement of the brain cortex, and the same irritative change which at first would give rise to a hemichorea would presently, going on to destruction, give rise to a one-sided palsy. Reflecting upon this, and mindful of the dogma that there is a near connexion between chorea and rheumatism, embolism emerges as a matter of course. The pathology of chorea is thus made out hypothetically with sufficient nicety. Trophic changes of the highest cerebral centres are mainly charged with its production, and the same observation of intricacy of movement which requires that the convolutions should have a large share in the phenomena requires also that the functions of the spinal cord should be unimpaired.

Such, I say, is the hypothesis, and you know pretty well how far morbid anatomy has been got to confirm it. The brain of chorea has been examined repeatedly with only negative results. Drs. Wilks and Moxon have never met with minute embolism in many fatal cases of chorea. Others have been equally unsuccessful. Yet evidence is not altogether wanting in some of those mixed cases, which I have mentioned as being of doubtful validity, to favour the belief in some sort of association between chorea and embolism, or thrombosis, or spots of cerebral softening. Dr. Tuckwell has described two such cases. Yet even here, besides all the drawbacks to the frank acceptance of anatomical testimony, the correspondence between the disorder and its local seat is not of that precise kind which physiology requires. The locality of the vascular plugging is seldom so limited as the hypothesis supposes; while in some instances (and notably in Dr. Tuckwell's) the extent and completeness of nerve-destruction are altogether inconsistent with that commonest form of chorea where recovery is complete and permanent. The utmost that can be said for morbid anatomy is this—that it does not directly contradict the conclusions of physiologists upon this subject. And even in admitting this we are met by the latest observations of all upon the anatomy of chorea—those, I mean, of Dr. Dickinson. The researches of this physician, pointing, as they do, to permanent and often destructive changes, distributed pretty equally throughout the brain and spinal cord, would prepare us for a formidable and progressive affection, allied anatomically with diseases which chorea in no way resembles. And not only so, but by including the spinal cord in the implicated region, a part whose integrity is expressly stipulated by all the theories, we are brought into grave collision with existing physiological doctrines.

Even supposing that the obscurity of morbid anatomy upon this subject were far less than it is, will it be contended either that chorea is actually provided for by our present theories, or that, in its common form and course, it can be got to correspond with such anatomical descriptions as we have of it? It would be easy to place side by side the chorea that we wish for and the chorea that really is. The affection we require should be sudden in its onset, and nearly associated with hemiplegia and local spasms; in virtue of its embolic relations, it should be most often right-sided, and not seldom progressive and ultimately fatal. Since the convolutions are concerned, it should involve mental change, and often aphasia; all persons should be liable to such an affection, men as well as children, and monkeys and dogs as well as human creatures. How different in all these respects, in spite of the prominence given to exceptional cases, is the actual thing. Chorea is an affection of the nursery and the school-room; it is caught by one child from another, gradually developed in those muscles which in the course of education are the most beset, due most often to the mental perturbations which are common in childhood, apt to be revived again and again without permanent injury to the child when such causes for it recur, rare amongst savages, almost unknown amongst strong men, and quite unknown away from humanity.

When, indeed, we come to consider what this ordinary chorea of childhood really is, without paralysis and without spasm, and often with no disturbance whatever to the general health, it seems difficult to conceive upon what hypothesis any definite structural lesion is to be attributed to it. Any such morbid change as would imply the abolition of function, or even its temporary arrest, is condemned beforehand by the facts of the case. The symptoms of chorea are less those of disease than of exalted function, an exaggeration and not the total abeyance of the proper limb use, while its recurrence many times in the same subject and in the same limbs gives conclusive proof that these repeated visitations are not destructive. They belong, indeed, to the pre-anatomic period, when all the functions of the nervous system are still active, although precarious and faulty in their exercise. As anatomists, it must be remembered that we do not come upon disease at its first inception,

but, at the earliest, only after it has achieved something. Thus, we recognise at the bedside spasm and paresis following each other as indications of the successive stages in a process which is at first irritative and presently destructive. But if we trace this parallelism a little further back, may we not conceive of a still earlier condition which is one of more instability, such as ordinary passion or emotion exhibits, and which, like these, is changeful and temporary, and, within certain limits, controllable by the will, which is anterior to spasm, and anterior also to any such gross material change as would leave an indelible trace?

I do not seek now to explain how this condition of instability should give rise, when occurring in suitable subjects, to the particular phenomena that we call chorea, although, I think, such explanation is naturally suggested by the observation of the living, if not of the dead. I only wish to insist that it is essential to the full recognition of the actual everyday symptoms of this temporary and contagious child's affection that the brain, and still more the spinal cord, should, in the anatomist's sense, be accounted healthy, and not diseased. Examples like this one of ours, and others which are rendered more complete by the discovery after death of embolism or softening, do not contradict this view; they help to confirm it. There is as little doubt that embolus and thrombosis have been met with in connexion with chorea as that the great majority of cases are independent of either of these conditions. Wherever there is a strong predisposition to chorea, its occurrence or revival or aggravation may be taken to indicate the earliest signal of cerebral disturbance. It matters not whether this early disturbance is due to some such cause as embolus or thrombosis, which from its nature is likely presently to develop into more, and ultimately to become a museum specimen; or whether it is (as is far more common) a temporary disturbance due to some emotional cause, and tending to complete recovery. It is enough that in either case chorea as a simple and uncomplicated affection requires the service of a brain which is structurally uninjured, and that just in proportion as injury progresses does the chorea alter its form, and give room to some one or other of the recognised clinical signs of nerve change.

And if this be so, it must be vain to look to morbid anatomy for an explanation of symptoms which become modified and disfigured by its intervention. It is true, no doubt, that almost all exact knowledge of disease must be based upon post-mortem evidence; yet it is easy to see that this kind of testimony is neither complete nor explicit. It tells little of the modes of progress of disease and nothing of its actual beginning. There are necessary limits to the service that anatomy can render to pathology, which it is well, I think, to recognise, even at the risk of being called metaphysicians, at a time when pathology away from anatomy has almost lost meaning. As regards chorea, no one is likely to doubt that its phenomena have some physical basis or other. The only question is, whether this basis is not rather to be ascertained from the study of motor phenomena than from an inspection of the dead body, which, with the cessation of movement, has lost the signs of chorea along with the signs of life.

ON A CASE OF UNILATERAL PARALYSIS AGITANS.

By DYCE DUCKWORTH, M.D., F.R.C.P.,

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W. K——, aged sixty, a herdsman, from Leyton, in Essex, was admitted into St. Bartholomew's Hospital under my care on Dec. 3rd, 1878. He was well-nourished and muscular, a short, stout man, with grey hair and weathered complexion. There was apparently some drooping of the right cheek, and traction of the mouth to the left side, due, probably, to loss of teeth. Arcus senilis in both corneæ; pupils equal; eyelids closed well. Lips drawn in somewhat. Tongue protruded tremulously, large, indented. Pulse 92, regular, full; radial artery rather tortuous; temperature 98°. It was noted that there was an undue amount of saliva in the mouth, but there was never any slobbering. The speech was distinct and natural, perhaps rather slow. Examination of the chest revealed some emphysema of the lungs, and the heart was overlapped, its sounds being natural but distant. Nothing abnormal in the abdomen. Appetite good. Bowels naturally relieved. The urine was normal. Some œdema about the ankles. The chief complaint, in addition to the tremors of the right arm and hand, was that of broken rest and discomfort at night. There was constant tremor of the right forearm and hand. The flexor muscles of the forearm were rigid and somewhat contracted, some effort being required to straighten the hand on the former, and the fingers upon the hand. Very little movement in the fingers, which were straight, the thumb opposed lightly to the index. Marked loss of muscular power in the arm, the grasp being much feebler than that on the left side. On making efforts to extend the arm, it was plainly seen that the tremors were much in abeyance, or even ceased entirely; as soon as the grasp was made, however, the tremors recommenced. After making any exertion with the right arm the tremors became more violent, and the palm and fingers began to sweat a good deal. There was no loss of sensation in the limb. Two or three times each night the patient was awakened by paroxysms of trembling in the arm, followed by cramps in the muscles and a sensation of heat on the inner surface of the limb. He usually felt so uncomfortable that he was compelled to get up and walk about for a little while. Some stiffness was felt in the right leg, and on walking it was slightly dragged, the toes being less raised at each step than those of the left foot. The muscles of the right thigh have been observed to tremble like those of the arm, but no tremor was ever seen in the lower extremity during the man's stay in hospital. Could not sit very long without getting cramp in the right hip. No dysphagia, and no difficulty in micturition or defecation. The patient remarked that he always felt better when he had plenty of out-door exercise. There was no shaking of the head; and no nystagmus was observed.

The history of the case was as follows. He was quite well till two years ago, when he got several severe wettings while shipping cattle at the London Docks. He was laid up in bed for a few days with cold and pains in the right leg. After some time the pains came on in the right arm, and the tremblings gradually supervened in the hand. They extended higher up the limb, and compelled him to give up his work two months ago. Since then, having kept quiet in-doors, he has been getting worse. Thirty-five years ago had inflammation of the lungs, but never had any other important illness. No history of syphilis or alcoholic intemperance. Has been treated with medicines and galvanism without benefit.

He was ordered liberal diet, and had no medicine for a few days. His pulse fell in frequency, varying from 60 to 80 beats in the minute. On the 9th December he was ordered a grain of bromide of camphor in pill, with bread-crumb, thrice a day. Careful measurements of the arms and legs were made, and it was found that the forearms were exactly of the same size, the right upper arm being one-third of an inch smaller than its fellow, and the right thigh one inch smaller in girth than the left. The right calf was also one-third of an inch less than its fellow. A specimen of his writing was also secured, and it was quite illegible, owing to sprawling strokes and splutterings of ink. He took exercise daily in the hospital-square. When asleep it was observed that the tremor ceased. The number of pills was increased from time to time, and he took six grains of the camphor bromide a day for about two weeks. He believed that he slept better, and had more comfortable nights in consequence, and on suspending the treatment for a time he requested its continuance. On December 19th it was noticed that his arm was almost quiet when he first moved about in the morning. His writing was more legible, but giving evidence of much tremulous movement in both upstrokes and downstrokes. On the 23rd the tremors were decidedly less marked. He walked very steadily in a straight line, with a stick in the left hand. On the 30th it was recorded that his nights were very good, and that he felt generally much better. The bromide of camphor was now increased gradually from six to eight, ten and fifteen grains a day, galvanism was employed to the arm each day, twenty-six cells of Leclanché's battery being used. There was some rigidity observed in the muscles of the right leg, extension of the knee and ankle being resisted. Some slight giddiness was sometimes felt after taking his pills. On January 10th, 1879, it was noted that he kept his arm nearly still for four hours. His writing was now much

more legible, though still uneven. On the 14th January he was regaining better use of his fingers, could pick up things, and hold a cup a tea steadily in his hand. Thirty cells of the battery were now employed.

From this time he varied from day to day, had sometimes bad nights, and the arm was occasionally very shaky; his writing showed improvement and more firmness. He took the pills up to the 4th of February, and was galvanised almost daily. On the 23rd no further improvement was noted, and the man, desiring to return home, was discharged.

Remarks.—This case illustrated the symptoms that are not uncommonly met with in the earlier stages of paralysis agitans. The limitation of the disorder to the right hand and arm is noteworthy in this respect, for the one-sidedness of this form of paralysis is perhaps more frequent at the outset than is generally believed. The whole right side was, indeed, affected, as evidenced by the weakness, wasting, and stiffness in the leg, but there was no evidence of any hemiplegic paralysis of ordinary cerebral origin. The following points may be noted in order, and they serve to mark off this disorder with distinctness from one formerly confounded with it—namely, disseminated spinal sclerosis. (1) The character of the tremor and the conditions which aggravated or assuaged it; (2) the immunity of the head from spasm; (3) the rigidity of the limbs; (4) the subjective sensation of heat, the sweating, restlessness, and disturbed nights; (5) the effects of treatment, and the progress of the disorder.

1. Respecting the tremor, there was nothing peculiar in the special movements, which continued when the arm was at rest. No exaggeration occurred on making definite movements, but, on the contrary, greater steadiness was manifested, there being no inco-ordinate action.

2. No tremor was observed in the head. This point has been especially insisted upon by Charcot and others, but, on the other hand, the absolute statement has been doubted. Dr. Wilks agrees with Charcot on this point, and reconciles the difference of opinion by referring to mere senile muscular debility the cases of head-tremor in very old people (tremor senilis). The speech, moreover, remained free from stammer, as is the rule in these cases.

3. The rigidity of the limbs was very marked. This symptom is generally present after the disease is established, and may be regarded, along with wasting of the muscles, as an untoward sign in any case.

4. The sensations of heat, the sweating and restlessnes, are very marked features in most cases. I have preserved notes of many cases in which these troubles were productive of much suffering. In this man's case the sweating followed exertion made with the arm, and the perverted sensation was confined to the limb. In many instances it is experienced all over the body. The thermometer shows no objective exaltation of temperature, however. None of these symptoms are met with in insular spinal sclerosis.

5. The effects of treatment in this case were noteworthy. I adopted the plan of medication with bromide of camphor upon Charcot's recommendation, and pushed the remedy to larger doses than have usually been employed. Relief was certainly afforded by it, and better nights were secured by its use. Still, the benefit seemed to be only temporary. The same may be said of the galvanic application. This has been frequently tried, but I am not aware of any permanent benefit that has resulted from it. And the same may, unfortunately, be said of all therapeutic efforts made against this ailment. Drugs such as zinc salts and belladonna would appear to be indicated, and should be tried in cases that are long under observation.

As yet the exact therapeutic indications in any given case are few. Morbid anatomy throws no light upon the nature of the disease, or, at all events, shows no definite and constantly recurring lesion. It cannot be said that the natural senile changes in the brain and spinal cord lead to the development of this disorder; for everyday experience refutes such a view. Neither is the disease limited to advanced life, although it is met with in an increasing ratio after forty years of age are attained.

After the implication of one side of the body, it is too common to find that the tremors come on in the opposite limb, and that the cases pass on from bad to worse. Workhouses and asylums for the aged afford the best scope for study of the disease in its most marked form, and the variety *festinans* or *dromada* is sometimes met with in such institutions.

Postcript.—August 15th.—This patient returned to report himself to-day. But little change has occurred in the last six months. He has now, however, slight tremor in the left arm and hand, and pains shooting down the front of the arm preceded this, as in the case of the opposite limb. There is also a little tremor in the lower jaw. The pupils are rather small, but equal; eyeballs quite steady. General nutrition very good. He is disturbed at night by the shooting pains in both arms and general restlessness. No change in his mode of walking. It is observed that there is slight increase in the patellar-tendon reflex in both limbs; rather more marked in the left, however. No ankle-clonus producible. He was ordered three grains of oxide of zinc and one-third of a grain of extract of belladonna in pill, to be taken twice a day, and to take moderate exercise repeatedly out of doors.

Grafton-street, Piccadilly, W.

ON

WOUND TREATMENT,

BY DRY AND INFREQUENT DRESSING, REST, AND PRESSURE.

BY SAMPSON GAMGEE, F.R.S.E.,

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WHEN seekers after truth are confronted by opposing and confusing doctrines, a prospect of ulterior gain makes up for present disappointment. The history of progress in science and in the arts, in religion as in politics, affords abundant evidence to prove "that the free development of differences is the soundest basis of unity," which is lasting, in proportion to the severity of the contest preceding its establishment. In the abstract, such a generalisation is a comforting one; so, as a rule, it is in practice, but within certain limits.

Differences of opinion, like all difficulties, are attended with the pleasant excitement of efforts to surmount them, and of hope for success; but if they seem to become more involved and stubborn, as able men devote greater energies to reconcile them, the perplexed student not unnaturally asks, What is the truth? If there is to be no end to the succession of Alp on Alp, what are the wayfarer's chances of reaching, before he is exhausted, the plateau for which he yearns?

These reflections have been suggested on reading the addresses on "Wound Treatment" lately delivered by Mr. Lister at Dublin, and by Mr. Savory at Cork. Did ever poles seem more widely asunder? Is the distance between them a reality, or merely an optical illusion, to be dispelled by accurate survey from different stand-points? How one of these distinguished surgeons reverences the ubiquity and the potency of Pasteur's germs, with the nicety of a refined microscopist, warning against a possible pinhole in the mackintosh covering, lest many of them abreast find their way through it to work destruction. How complacently the vibrios are glanced at by the other observer, from behind his formidable rampart of surgical statistics. How one lavishes praise on the cleansing and healing drainage-tube, which for the other is a very thorn in the flesh. How one extols the comforting bread-poultice, a festering bed of local pestilence and probable blood-poisoning, according to the doctrine of the other. How one values the thermometer, as the mariner the lead-line, which the other barely mentions. How nearly both accord in saying nothing for, or meting scant justice to, what I hold to be, if the last, certainly not the least, of the trinity of healing surgical graces—*rest, position, and pressure.*

What is the truth on the great question of wound treatment? My former communications on this subject, which have been favoured with the privilege of publicity through these columns, have been in the form of clinical lectures. In this the long vacation, classes of students are dispersed; and I trust the readers of THE LANCET will be good enough to excuse the colloquial style, while, after recording the leading clinical facts, I comment on the following severe cases now progressing towards recovery in my hospital or private practice:—(1) Syme's amputation at the ankle; (2) resection of bone for ununited fracture of the humerus; (3) compound fracture of the tibia from direct

violence, with extensive laceration of soft parts; (4) large fetid abscess connected with spinal caries, treated under the spray according to Professor Lister's method; (5) severe onychia and inflammation of the great-toe, after injury of two months' standing.

CASE 1.—On the 1st August I amputated, for scrofulous disease at the ankle, by Syme's method, the right foot of J. B——, aged eight. The vessels tied with silk, drainage-tube passed through wound, its edges closely united by six silver sutures and intervening strips of lint soaked in styptic colloid, the dressing was completed with gauze and oakum-pads and two posterior pasteboard splints, smoothly compressing bandage, and substantial lateral sandbag packing. The ends of the india-rubber drainage-tube were left outside the dressing. On the evening of the operation, temperature 98·4°; pulse 108; respiration 34.

August 3rd.—Temperature 102°; pulse 130; respiration 33. Delirious during the night. Involuntary micturition this morning. Face flushed. Some reddish, non-offensive discharge has oozed through drainage-tube. Absolute rest enjoined, and nothing done to stump. Patient to be closely watched. Iced milk diet.

4th.—Temperature down to 100°; it continued steadily to fall, as did the pulse and respiration, until the date of first dressing on August 7th, a week after the operation, when the following note was entered in the ward case-book: "Temperature 99°; pulse 94; respiration 24. Wound solidly united except at drainage-tube. Skin perfectly normal. Dry pads, pasteboard splints, and compressing bandage applied as before. The drainage-tube was not removed until the tenth day, when it was drawn through the wound without disturbing the dressings.

14th.—(Second dressing.) Cicatrix linear and dry, excepting a little discharge at outer angle. Surrounding parts normal. All sutures removed. Temperature 98·4°; pulse 120; respiration 28.

18th.—Temperature 98°; pulse 102; respiration 24.

CASE 2.—On Aug. 7th I resected the ends of an ununited fracture of the right humerus of T. P——, a moulder, aged twenty-eight. He was healthy in youth, but since he was twenty-two has suffered greatly from chronic rheumatism, and has lost three stone in weight. When he first attended at the hospital as an out-patient for rheumatism of the right shoulder, he was not aware that his arm was broken, which, from the history, it had evidently been for some time, without the man being able to give any account of the occurrence. The limb was put up in immovable apparatus by my house-surgeon, Mr. Jordan Lloyd, who has dressed and kept the records of this and the preceding case. As there was no prospect of union, I operated on Aug. 7th. The fracture was above

the insertion of the deltoid, the upper fragment displaced outwards, the lower upwards and inwards. I made an incision of three inches on the outer side over the fracture, detached the periosteum with a raspatory, and with strong bone pliers cut off an inch from each extremity of the denuded bone. A large drainage-tube was inserted into the lower angle of the wound, which was closed above with three silver sutures. Dressing with dry gauze and oakum pad, limb absolutely immobilised in a pasteboard apparatus, in the position shown in the annexed woodcut. The man slept well, and next morning complained of hunger. Temperature 99·6°; pulse 108; respiration 30.

Aug. 12th (fifth day after operation).—Wound exposed by cutting through dressings, which were saturated with dirty, red, stinking discharge; the splints were mildewed. The outer end of the drainage-tube had inadvertently been left in the dressings, instead of being drawn through them to the outside. The wound was lightly wiped with pledgets of dry lint, and appeared solid, except at drainage-tube; surrounding skin pale; only a little redness at points of suture, all which were removed; drainage-tube shortened one inch. Clean, dry oakum pads applied, with dry pasteboard splints outside the old ones. The patient has had but little pain. Temperature 98°; pulse 112; respiration 28.

16th (second dressing).—As before. Temperature 98°; pulse 96; respiration 20. Patient to get up.

At the third dressing (Aug. 19th) the drainage-tube was removed.

22nd (fifteenth day; fourth dressing).—On removal of the dressings there was scarcely any discharge; no odour; wound united deeply, and almost wholly on the surface; there were a few granulations, which were lightly touched with sulphate of copper; no discharge on pressure; the surrounding soft parts looked and felt perfectly healthy; limb dressed and immobilised as before. The man's appetite was good; his bowels acted regularly, and he was allowed to walk out on the hospital-green.

28th.—Cicatrix quite dry and solid; general health improving. Immovable apparatus reapplied definitely.

CASE 3.—F. H——, aged five, admitted under my care on Aug. 15th, by Mr. James Brett, house-surgeon, who has dressed and taken notes of the case. The injury was a most formidable one, the child's right leg having been crushed between a passing cart and a large stone. The skin and soft parts down to the deep fascia were torn from over the popliteal space and calf of the leg; the upper part of the flap was torn, the rest appeared to have been dissected off. The flap measured seven and a half inches in length, three inches broad. Marks of severe contusion down the front of the leg; great swelling about the foot and ankle; there was a compound fracture in the lower third of the tibia. The flap readjusted under chloroform, and fixed with six silver sutures; the limb surrounded with dry gauze and oakum pads, cotton wool, moist pasteboard splints, and gently compressing bandage. No drainage-tube was used. To ensure immobility a sandbag twenty-six inches long and fourteen pounds in weight was placed on the outer side of the limb, a similar one twenty inches long and fourteen pounds weight on the inner side; a third sandbag, measuring ten inches by six, and weighing four pounds, across the two preceding ones and the intervening leg. The next day the temperature was 100·4°; pulse 98; respiration 30. The third day the thermometer stood at health, but it soon shot up.

At my second visit on Aug. 19th (7.30 P.M.), the temperature being 103°, the pulse 120, and the respiration 32, the wound was dressed under chloroform. On removing the apparatus, portions of the integument of the calf were sloughing. Three tense stitches were cut through. The foot and front of the leg looked well. The surface was wiped with pledgets of dry lint, and the limb put up precisely as before. Next morning the temperature had fallen to 99·2°.

Aug. 23rd (eighth day).—Second dressing under chloroform. Temperature 99°; pulse 96; respiration 26. Appetite good. The bowels acted regularly. On removal of the pads there was an entire absence of swelling. The skin on the front of the leg was pale and healthy-looking. Shreds of dead skin were detached from the back with scissors, and wiped off with dry lint. Wound granulating healthily. Dry compressing and immovable apparatus reapplied.[1]

[1] On Aug. 27th, after this MS. was sent to press, the temperature rose to 103·6°, and symptoms of trismus appeared; opisthotonos followed rapidly. Local and constitutional quiet, milk diet, timely purgatives, and a mixture of five grains of chloral and ten grains of bromide of potassium every three or four hours, have so far been attended with benefit that the patient survives. Present state (11 A.M., Sept. 2nd): Temperature 100·2°; pulse 130; respiration 34. Takes milk freely; has passed a very good night, but there is, just now, considerable general twitching. The progress of the case will be followed up in the concluding paper.

Some of the leading features of the three preceding cases may now be commented on. In all the dressings were dry, only excepting the moistening of the pasteboard splints for the convenience of accurate moulding. I never touch a wound with water, but I very lightly wipe its surface and the surrounding part, with a pledget of dry lint or fine cotton-wool, or a camel-hair pencil. The dressings were changed at long intervals, and in the two children this was done under chloroform. Pain is not a sentimental evil, but a great practical source of mischief. Local pain excites the general nervous system, sends up the temperature, and sets the muscles twitching—each and all great evils, which are counteracted most successfully by absolute rest, with fixed joints, smoothly compressing bandages, heavy sandbag packing, and disturbance of the dressings as infrequently as possible. Watching the thermometer, at various times throughout the day, is essential. In the first case we became extra watchful, as the temperature in the delirious and flushed little boy touched 102°. But delirium is less important in children than adults; and, though the temperature was formidable, I knew I had left all right within the dressings; the reddish fluid oozing through the exposed ends of the drainage-tube proved that it was acting well, and giving instructions for extra watch, I was satisfied to wait. The mercury fell immediately and steadily. The wound was not dressed until the seventh day, the tube removed on the tenth, the second dressing and the sutures on the fourteenth, when the cicatrix was linear and dry, the lad jolly and free from pain. When the little boy of the third case, whose limb had been so severely crushed, marked a temperature of 103° at 7.30 the evening of the third day, I knew threatening rocks were ahead, and the pace must be slackened. Under chloroform we exposed the limb to find tense stitches and a sloughing flap; the former were cut; the latter gently wiped dry, immovable and evenly compressing apparatus applied, with rapid fall of temperature to the healthy standard.

As the injury in the last case was mainly a surface one and at the back of the limb, I trusted to natural drainage, and did not use the india-rubber tube which was of the utmost service in the first and second cases. With the open treatment of wounds, the drainage-tube may be dispensed with with comparative safety; but when edges are closely approximated, when, as in Mr. Lister's practice and my own, though for different reasons, the wound is hidden under dressings, the drainage-tube is essential. It is so all the more when the carbolic spray and other irritating antiseptics are employed, because they provoke effusion, which, if pent up, causes tension and rise of temperature, and so opens the chapter of local and constitutional accidents.

(To be concluded.)

THE HYPOPHOSPHITES IN PHTHISIS.

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(Concluded from p. 313.)

MEDICAL literature has for some years been comparatively silent on the subject of the hypophosphite treatment of consumption, until the papers of Dr. Charteris in THE LANCET of May 13th and July 29th, 1877, in which he records, without at the same time advancing any theory, an interesting experience of this drug, which he entered upon sceptically. In 30 cases treated, 13 left the hospital improved, 12 were not improved, and 5 died. On the whole, his experience seems very favourable to the remedy. He was struck with their power apparently to check night-sweats, even when otherwise inefficient. That they are not inert he thinks is evidenced by their influence on the sweating, and that they give tone to the system is shown by the increased appetite and general cheerfulness. He is forced to the conclusion that, when they did no good, they certainly did harm—for instance, by increasing fever. They ought not, therefore, to be used indiscriminately, but the cases should be watched thermometrically.

It is just nineteen years since I first prescribed the hypophosphites of lime and soda. It was in the case of a resident in Glasgow. I was consulted by him on account of an attack of hæmoptysis, one of a series which proceeded apparently from a softening cavity in the left apex, the sequel of a "severe cold in the lung." He rapidly improved in condition, and all the local symptoms disappeared speedily under the treatment. He has continued in excellent health, and is the father of a large healthy family.

One's opinion of the merits of a drug is greatly due to the success of a first trial, and I confess that I have since had a bias in favour of the remedy. I have, since my first fortunate experience, used the hypophosphites in a considerable number of cases, with more or less success, but as these have occurred at intervals, either in private practice or in the wards of a general hospital, the opportunity was not afforded of making comparative observations in a large enough number of cases, sufficiently systematic and detailed to serve as the basis of a fair therapeutic estimate. I have lately been carrying out a somewhat extended series of observations, with a view to test the value of the hypophosphites in phthisis, in the Royal National Hospital for Consumption at Ventnor, and as it is not a very long time since this much vexed subject has again been prominently brought before the notice of the profession, perhaps my experience of the remedy (more especially as it is in many respects at variance with that of Dr. Charteris) may not be without interest. The results which are detailed below are derived from a synopsis of cases drawn up by myself from the case-books of the hospital, recorded by Drs. Williamson and Fraser, my late resident physicians, to whose assistance I am much indebted for the completeness of the reports, neither of them having, I believe, any prejudice on the subject of the hypophosphites. The physical signs in each case, as entered in the schedules by the examining physician, were verified on admission, and indicated in pen-and-ink on lithographed outlines of the trunk of the body, affixed to the report of each case in our case-books. The weight and other observations were taken at stated intervals. The drugs were usually administered according to the following formula, which was found to suit the greater number of the patients very well. Eight grains each of hypophosphite of soda and hypophosphite of lime, in an ounce of infusion of cascarilla, to be taken twice a day after meals. When anæmia was present to an extent to indicate specific treatment, the hypophosphite of iron in syrup was given either by itself or coincidently with smaller doses of the other two salts, but my experience of the iron salt was most unfavourable. It seemed to be extremely difficult of assimilation, and showed a great tendency to induce febrile movement, with especially rapid elevation of the temperature. It will be found of great use indeed in all cases where there is a persistent low temperature, such as we meet with in anæmic and other allied conditions. The doses, as stated above, were varied in the several cases in order to test the operation of the remedy, the dose in a number of cases being reduced to four grains of each salt once a day after breakfast; and again, the administration of the drug was suspended with a similar view. The vehicle was also varied from time to time, but no marked difference in effect was observed. Syrups, unless perhaps syrup of lemon, do not seem as a rule so well borne as the vegetable bitters, but glycerine is an excellent addition to the vehicle, especially where there is constipation, or an intolerance for cod-liver oil.

The hypophosphites were prescribed in 100 cases chosen indiscriminately, and they were carefully observed, so as to admit of attention being paid at once to any indication for the suspension of the remedy, or any other modification of treatment which might seem necessary. Of the patients so treated, 74 were men and 26 women. In 82 cases the duration of the disease could be approximately ascertained; the longest had extended over five years, the shortest two months, giving an average of eighteen months and a half to each; (63 were cases of pneumonic and 37 were cases of tubercular phthisis.) In 13 of the cases of long standing, the morbid process in the lungs had assumed the fibroid character, while in 2 of the cases syphilitic infection evidently gave an important pathological complexion to the pulmonary lesion. In 31 of the patients the right lung, and in 22 the left lung, was alone affected, while in 47 both lungs were more or less diseased. In 8 cases the disease was in the first stage, in 20 in the second stage, in 51 in the third stage, in 6 in the first and second stage, in 2 in the first and third, and in 13 in the second and third stages. In 53 cases hæmoptysis had occurred previous to coming

to the hospital, of which 11 had also a recurrence while under the hypophosphites, and hæmoptysis occurred for the first time in two cases while under treatment. The period under treatment averaged forty-seven days for each patient. In 25 of the cases the patients were under treatment for periods varying from nine to sixteen weeks.

In 24 cases the treatment was totally unaided, in 7 aided with cod-liver oil only, and in 69 the treatment had to be aided otherwise, and the exhibition of the hypophosphites interrupted for the correction of various symptoms of derangement of functions. The hypophosphites had to be entirely and permanently suspended after a time in 38 cases, and after a few days in 6—in all 44. Of these 44 cases, 18 improved under a change of treatment, 12 got worse, 10 showed no material change, and 4 subsequently died (two of them from tubercular meningitis, in one of which it was developed during the treatment).

The general results of the treatment in the 100 cases, as derived from a synopsis of the individual reports, are as follows:—

(1) *Fever*, as indicated by temperature, was developed or increased in 27 of the patients; it diminished without aid in 14; whilst 59 were apparently uninfluenced.

(2) *Dyspnœa* was a pronounced symptom in 23 cases; it was increased in 10 and diminished in 13 of them.

(3) *Cough* appeared to be aggravated in 24 cases, relieved in 36, while in 40 it was materially unaffected.

(4) *Expectoration* increased in 21, decreased in 41, and was uninfluenced in 38.

(5) *Colliquative sweating* was an urgent symptom in 40 of the patients; in 7 it came on for the first time, owing apparently to the exhibition of the hypophosphites. Of these 40 cases, 24 were uninfluenced, 16 improved, but in 21 of them the treatment had to be aided, in order to check the action of the skin, by atropia and other appropriate means. I was particularly disappointed with this result in the face of Dr. Charteris's very favourable experience of the hypophosphite salts in connexion with this symptom. Indeed, in only one case was I able positively to refer the removal of the night-sweats to the influence of the hypophosphites. In the other cases in which amelioration of this symptom took place, it could only be regarded as part of the gradual improvement of the case generally.

(6) *Sleeplessness* was noted in 11 cases. In 3 of them there was most marked improvement, and in 8 the remedy did not seem to exert any influence. It seemed to induce sleeplessness in 2 cases, and in 1 (a female) it produced marked cerebral excitement.

(7) *Appetite* was improved in 52, diminished in 7, and unaffected in 41 cases. This proved to be one of its most valuable properties.

(8) *Constipation* occasioned trouble in 34 of the cases, but it is a common effect of the residence in the Royal National Hospital, and probably to a great extent due to the large quantity of rich milk entering into the dietary, and the large amount of lime in the water used for drinking and cooking.

(9) *Diarrhœa* was produced, apparently, in 6 cases, and was of a bilious character.

(10) *Hepatic derangement* occurred in 14 of the patients.

(11) *Neuralgic headache* appeared to be caused by the remedy in 6.

(12) *Rheumatism* of a subacute character developed itself in 4 cases, and of a distinctly gouty form in another.

(13) *Weight* was gained by no less than 62 of the patients, lost in 26, unaffected in 12. The total weight gained by the 57 patients was 314¾ lb. in 405 days, while 24 patients lost 80¾ lb. in 114 days, of whom 7 gained 17¼ lb., but afterwards lost it. The greatest weight gained by any one of the 57 patients was 14 lb. in four weeks, while on the other hand one patient lost 12½ lb. in seven weeks. The relation of increased weight to improved health, local and general, was by no means constant, for no less than 17 patients gained weight and got worse, while 6 lost weight, but improved otherwise in health. In 3 of the cases which had made weight but deteriorated under the hypophosphites, weight was lost but improved health resulted after a change of treatment. In this connexion may be noted the peculiar action of dilute phosphoric acid when given any length of time in doses of from twenty to thirty minims in reducing weight. This I have determined in a large number of carefully recorded cases. This has suggested its use in those cases of phthisis, frequently partaking of the hæmorrhagic character, where the patient is fat, flabby, and often plethoric in habit. In these I have found the dilute phosphoric acid with glycerine, and a vegetable tonic give more satisfactory results than any other treatment.

(14) *The physical signs* in the lungs improved in 43 patients, got worse in 25, and were materially unaltered in 32.

(15) *The general health* was influenced favourably in 57 cases, unfavourably in 26, and unaffected in 17. In 14 cases it was observed that the general condition of the patient seemed to be improved, while the disease in the lungs progressed. It is to be noted here that of the 57 cases showing improvement of general condition, 39 were cases of pneumonic origin, and only 18 derived from constitutional cachexia. As the proportion of pneumonic and tubercular cases was 63 and 37 per cent. respectively, this shows that the cases of more purely local inflammatory origin were benefited in a much larger ratio, and as these are the cases of which the prognosis is always more favourable, and which are also more amenable to general tonic treatment, it is evident the hypophosphites failed to show any *specific* characters whatever.

A fair way to arrive at a true estimate of the hypophosphite treatment is to compare its general results with those of treatment of the whole body of the patients treated in the hospital during the same year. This is a comparison favouring the hypophosphites, as 25 per cent. of the total deaths occurred shortly after admission, the patients being in such a rapidly advancing state of disease as to preclude all attempts at systematic treatment; besides, in no case were the hypophosphites administered in which the prognosis was positively hopeless, also when non-success was demonstrated the treatment was changed.

Of the total patients treated in the hospital during the year—viz., 428—297 improved, 56 remained *in statu quo*, 51 got worse, and 24 died.

Of those treated by the hypophosphites—viz., 100—57 improved, 17 remained *in statu quo*, 26 got worse, and 4 died.

It seems evident from these statistics that the hypophosphites have no claim whatever to the character or properties of a specific remedy in the developed stages of pulmonary consumption.

In only 25 per cent. of the cases could they be employed, unaided, and these were cases that would probably have shown good results from favourable change of climate, improved dietetic and hygienic conditions, with general tonic treatment. Great disappointment resulted from its impotency in checking such characteristic symptoms of the disease as night sweats, or influencing favourably the febrile conditions indicating advancing lung mischief.

That, however, these salts, when judiciously employed, have valuable tonic properties, promoting the appetite, the digestion, and the assimilation, more especially of fatty food, was strongly impressed on all who closely watched the effects of their administration. They have evidently strong pyrogenic or heat-producing properties, acting, indeed, on the system like phosphorus itself. This is especially the character of the hypophosphite of iron, which, indeed, renders it a very dangerous remedy in the arrested forms of the disease. These properties contraindicate their employment in advancing stages of phthisis, where there is high temperature and increased frequency of pulse. But when the disease is arrested, they come into favourable consideration as a means of stimulating the nervous system, and through it the subordinate processes of nutrition. The feeling of languor and lassitude so often complained of by the consumptive seems often greatly relieved, and unquestionably they have valuable weight-making properties. They have certainly no specific influence (so far as I have been able, after the most careful and unbiased observation, to form an opinion) either in arresting when in progress, or markedly promoting repair when stayed, the several forms of pulmonary phthisis, whether tubercular or pneumonic.

To say that they have a specifically curative influence on the diathesis, and not on the lesion, is to relegate the hypophosphites to the category of a large number of general tonic remedies, of the good effects of which there is long, ample, and well-founded experience. On the other hand, it is greatly to be regretted that the hypophosphites of lime, and soda more particularly, should have claimed for them, in terms of extravagant laudation, the character of a specific in pulmonary consumption, which they do not seem to possess, and which much-to-be-deprecated proceeding has, no doubt, largely contributed to their being regarded with suspicion, and to their undoubted properties as general or nervine

tonics, perhaps even as tissue-builders, being overlooked. As such they will certainly be found of great value in certain stages of treatment in appropriate cases. Indeed, this their legitimate use is very largely and increasingly recognised by the profession, and they are, with the lactophosphates of lime and iron, perhaps the best general tonics both in cases of incipient consumption and in the more advanced stages of that disease, when the progress of the disease has been arrested.

Ventnor, I.W.

NOTES OF A CASE OF HYDROPHOBIA, IN WHICH THE HOT-AIR BATH WAS EMPLOYED.

BY F. A. SOUTHAM, M.A. OXON., F.R.C.S.,
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SUSAN T——, aged twenty-eight years, unmarried, a strong, well-developed servant-girl, was bitten on March 4th, 1879, by a large mastiff dog, which was immediately afterwards destroyed, thus preventing any chance of definitely ascertaining the presence of rabies, though this was not at the time suspected. The wound, which was inflicted on the left wrist, was not cauterised, and readily healed. On April 11th, nearly six weeks after the injury, having in the meantime enjoyed good health and apparently forgotten all about the bite, she began to complain of pain in the cicatrix of the wound and up the left arm, of feeling chilly, and also of an aching sensation in the back and limbs. On the following day she was somewhat better, but on April 13th she manifested symptoms of great aversion to fluids, and complained of a sensation of suffocation and difficulty in breathing. The next day, April 14th, there was almost complete inability to swallow, and this, along with the other symptoms which were present, clearly indicating that the patient was suffering from hydrophobia, she was removed the same evening to the hospital.

Condition on admission at 9 P.M.—Perfectly conscious; excited and anxious expression; begged that no one would approach her as she felt so nervous. Able to walk without assistance. Aerophobia very well marked, the slightest draught or breath of air bringing on a paroxysm. Extreme dread of fluids, shuddering at the mention of water, and begging us not to bring it near her. Complains at once of the draught, and starts up in bed if the door is opened or left ajar. Respiration 32, irregular, short, and gasping, interrupted from time to time by a deep sigh; pulse 136, very weak; temperature 98·8°; skin slightly moist; pupils dilated, conjunctivæ somewhat suffused. Complains of difficulty of breathing and feeling of suffocation, with sensation of tightness over diaphragm. Says she has now no pain in the old cicatrix, and begs us not to remind her of the wound. Constantly expectorates viscid frothy saliva. Suffers from constant spasms, affecting chiefly the muscles of respiration, causing her to start up in bed and gasp for breath, especially if anyone approaches her. An attempt to get her to swallow some milk brought on a very severe paroxysm.—9.30 P.M.: One-sixth of a grain of curara in a freshly prepared solution was injected into the arm, and as this gave no relief to the symptoms, half a grain of morphia was injected subcutaneously half an hour afterwards. 11 P.M.: The condition of the patient had become much worse. The breathing was extremely embarrassed, having become very quick, shallow, gasping, and more irregular. The countenance was dusky, and the lips of a livid hue. The paroxysms became more frequent and severe. She complained of great difficulty in breathing, with a sense of intense suffocation and inability to clear her throat of mucus. She kept continually expectorating tenacious saliva, and the rattling of the mucus in her throat could be heard at some distance. She remained perfectly conscious, talking rationally in a low whisper.

Thinking that the increased difficulty in breathing and signs of deficient aeration of the blood might be perhaps due to the physiological action of the curara, it was thought advisable to discontinue its administration, and, after consultation with Dr. Graham Steell, resident medical officer, I determined to try the effect of a hot-air bath upon the patient. A rough kind of Turkish bath was therefore improvised. The patient was wrapped in blankets up to the neck, a bed-cage covered with blankets was placed over her body and legs, and a large spirit-lamp placed beneath the cage at the bottom of the bed. The necessary preparations for carrying out this treatment excited such severe spasms that we were almost obliged to desist; but as the patient submitted quite willingly, and tried to assist us in every way, being anxious to obtain some relief, we managed to accomplish our object, and at 11.45 P.M. the apparatus was working, and the body of the patient, as she lay in bed, surrounded with an atmosphere of hot dry air. In less than a quarter of an hour a marked change was observed in her condition. The spasms became gradually less frequent and less severe, and in the course of another half-hour had altogether disappeared; the breathing at the same time gradually improved, becoming more regular, deeper, and not so rapid. She said that the warmth gave her a feeling of great relief, and her improved colour and general appearance betokened a change for the better. This treatment was continued for an hour and a half, the patient in the meantime perspiring freely, and at 1.15 A.M. the lamp was removed, the body wrapped in blankets, and hot bottles placed on either side.—1.30 A.M.: Temperature 98·8°; pulse 130; respiration 32. The breathing had now become quiet and regular, and the paroxysms, with the exception of an occasional slight catch in the breathing, had entirely ceased. The aerophobia had quite disappeared, the countenance was less dusky, and she lay quietly in bed, feeling perfectly easy, and expressing a desire to go to sleep. The discharge of saliva from the mouth had stopped, and she experienced no pain nor discomfort with the exception of a feeling of rawness about the sternum. No mention of fluids nor attempt to give her any food was made for fear of exciting a return of the spasms. She still remained perfectly conscious and rational, expressing her gratitude for the relief we had afforded her by means of the hot-air bath.

After this there was no change in the symptoms, the patient remaining quite easy and comfortable, dropping off to sleep for fifteen or twenty minutes at a time, and waking up without any spasm or recurrence of her former symptoms. At 3.30 A.M., after having enjoyed a calm sleep of about half an hour, she all at once awoke with a violent paroxysm, starting up in bed with a copious discharge of saliva from the mouth, and died very suddenly, apparently from spasm of the glottis. The urine had a specific gravity of 1030, acid; slight mucous deposit; large quantity of albumen and sugar present.

The post-mortem examination showed, as usual, no morbid changes, all the organs appearing to the naked eye perfectly healthy, with the exception of a little undue vascularisation about the pons and medulla, especially in the neighbourhood of the fourth ventricle.

Remarks.—This is the fifth case of hydrophobia which has been treated in this hospital during my residence here in the course of the last twelve months. The condition of the urine in hydrophobia is interesting, for in all five cases it was loaded with albumen; while in this, as also in two of the other cases, sugar was present in considerable quantity. The glycosuria cannot be attributed to the physiological action of the curara, for this condition was present in two cases in which this drug was not exhibited.

As regards the temperature of the patient, it appears to vary very considerably. In two of the four cases to which I have referred it was found to rise slowly and steadily, the temperature in the axilla shortly before death registering in the respective cases 100·4°, 103·2°, 101·4°, and 105°. In the present instance the absence of any rise may have perhaps been due to the free diaphoresis which was excited by the hot-air bath.

Of the four other cases, all of which proved fatal, one was treated with subcutaneous injections of chloral hydrate and morphia, one with chloral alone, one with curara and morphia, and one with morphia alone.

With regard to the employment of chloral and morphia, these drugs appear to have very little influence over the course of the disease, merely masking the symptoms by narcotising the patient, and before this object can be attained they have to be administered in large and almost poisonous doses. Curara is, I think, a very dangerous remedy, as in the previous case alarming symptoms of failure of the respiratory power suddenly appeared after two injections of one-quarter grain each at an interval of three

hours had been given. In the present instance the marked embarrassment of the breathing, as shown by its irregular, rapid, and shallow character, together with the cyanotic appearances of the patient shortly after one-sixth of a grain had been injected, may, I think, have been very probably due to the toxic action of the drug.

The employment of hot-air and vapour baths, old and popular remedies in the treatment of hydrophobia, with the view of eliminating the poison from the blood by means of the free diaphoresis which is thereby induced, appears to be a not altogether irrational plan of treatment, and is, I think, worthy of further trial in the absence of any known antidote for the poison. The marked relief to the patient and alleviation in the symptoms which it at once afforded in the present instance, and the failure of the drugs which I have mentioned in the other cases, would, if another case presented itself, lead me to at once have recourse to this plan of treatment, and I have published these notes in the hope that others may be induced to give it a similar trial.

OBSERVATIONS ON CATARACT IN INDIA;

WITH AN ANALYSIS OF 512 CASES OPERATED ON IN THE AZAMGARH HOSPITAL DURING THE YEAR 1878.

BY P. J. FREYER, A.B., M.D.,

SURGEON H.M. BENGAL ARMY; OFFICIATING CIVIL SURGEON, N.W. PROVINCES.

(Concluded from p. 314.)

AMONGST the 512 cases of cataract which are the immediate subject of this paper, the *congenital* variety occurred only once. It was instanced in a female child aged seven years, who had been blind from her birth. She appeared to have no perception of light, but still I thought it right to try the effect of an operation on one eye. For reasons that will appear hereafter, extraction of the lens was the operation performed. Though the procedure was attended by no mishap, and the wound healed naturally, no vision resulted. Ophthalmoscopic examination of the eye revealed atrophy of the optic disc.

There was only one instance of *traumatic* cataract, which occurred in a man aged seventy years. The disease resulted from a blow on the eye by a stick. The lens was extracted successfully.

There were eight cases of *soft* cataract. The average age in these cases at the time of operation was thirty-nine years, but in all of them the opacity of the lens had existed several years.

In 494 instances the cataracts were of either the *mixed* or *hard* varieties; but in many of these, owing to the length of time the disease had existed, it was impossible to say whether the degeneration had commenced in the cortical or nuclear portion of the lens. The average age of the persons amongst whom these 494 cases of cataract occurred was approximately fifty-five years. It must be remembered, however, that in the large majority of them the cataracts had existed mature for several years previous to the time they came under observation; so that the average age at which cataract occurred amongst these people was considerably below this figure.

Amongst the cases mentioned in last paragraph there were several instances of the variety known as *Morgagnian* cataract, in which a small hard nucleus is surrounded by, and moves about in, a thin milky fluid.

There were two cases of *black* cataract, in which the lenses were uniformly dense and dark throughout their whole extent. They resembled each other in the fact that in both cases there was complete absence of even sensation of light. In one case I extracted the lens with success, good vision resulting. In the other instance, though the operation was attended by no accident and the wound healed normally, the patient obtained no vision. There had been no history of glaucoma, the eye was healthy-looking in every respect after the operation, and the ophthalmoscope revealed no abnormality in the deep-seated structures, but there was no vision, not even perception of light. I did not operate on the second eye, which presented a similar appearance.

There were two instances of *bony* cataract, in which the lens had undergone calcareous degeneration. The appearance of the lens before operation was that of a piece of polished ivory, and after extraction it was extremely dense and hard. In each case only one eye was thus affected, the other eye suffering from ordinary hard cataract. In both cases extraction of the lens was performed successfully.

Three instances of *capsular* cataract occurred. In each of these the cataract consisted merely of an opaque capsule obscuring vision, the lenticular portion having been apparently absorbed. In two of these cases I extracted the opaque capsule by means of iris forceps introduced through a small linear incision in the cornea close to the sclero-corneal junction. In both instances good vision resulted from the operation. In the remaining case I lacerated the capsule by means of two needles introduced through the cornea at opposite points. In this case the result was unsatisfactory, the patient leaving the hospital with scarcely any vision in the eye operated on, and refusing to submit to a second operation.

Three cases occurred in which, the central portion of the lens being opaque and the edges translucent, there were circumstances that rendered extraction of the lens inadvisable. In each of these I made an artificial pupil by iridectomy opposite the translucent edge. In all three cases the operation was successful, having been followed by good vision in each instance.

In the remaining 506 cases the operation undertaken for the restoration of vision was extraction of the lens. The operation performed in all instances was the modified von Graefe's linear extraction after the manner described by Mr. Brudenell Carter in his work on Diseases of the Eye, with this difference, however, that in most cases the incision was made wholly through the cornea, but as close to the sclero-corneal junction as possible. From practical experience, I am inclined to think that better results will be obtained, in India at least, by making the incision wholly through the cornea than wholly or partially through the sclerotic; but the incision should be extremely close to (almost in) the sclero-corneal junction. I am still in the habit of making the incision through the sclerotic where the anterior chamber of the eye is very deep and the vicinity of the ciliary body can be easily avoided; but my experience is that, as a general rule, when the incision is made through the sclerotic there is a tendency to iritis supervening. In some instances I have found it convenient to modify the direction of the corneal incision, owing to opacity of the cornea or peculiarities in the general conformation of the eyeball existing. An iridectomy was performed in all cases before rupturing the capsule of the lens, except in a few instances in which the pupil was very widely dilated, and the lens in its capsule slipped out after making the corneal incision, almost by the mere tension of the vitreous aided by the faintest external pressure.

The patient was anæsthetised in every instance during the operation, the anæsthetic used being chloroform. I consider that too much stress cannot be laid on the absolute necessity of seeing that anæsthesia is thorough and complete before commencing the operation. Not alone is it essential that sensation should be completely in abeyance, but the muscles of the eye should be perfectly passive and incapable of contraction under reflex action. I know of no other operation in which a profound anæsthesia is more absolutely essential than in extraction of the lens. It is very necessary to guard against being deceived by that apparent insensibility that occasionally occurs during the administration of chloroform just before the struggling stage sets in. The quantity of chloroform inhaled will be the best guide against falling into such a mistake; for whilst this seeming insensibility usually takes place when somewhat less than a drachm of chloroform has been used, I find that, owing to the extreme volatility of the drug in India, it generally requires not less than three drachms to effect complete anæsthesia.

Of the 506 operations for extraction of the lens 342 were successful, good vision resulting; 40 were partially successful, fair vision resulting; 111 were unsuccessful, in which little or no vision resulted; and in 13 instances the results are unknown, the patients having left hospital without leave after the operation. Thus, of the total number o- operations, in 75·5 per cent. good or fair vision was obtained; and in 24·5 per cent. the result was either unsucf cessful or unknown. I may, however, mention that in a few of the cases returned as unsuccessful, and in which the

result was due to closure of the pupil from iritis, I subsequently established an artificial pupil by iridectomy in some three or four cases with success, fair vision resulting. It is probable that others of a similar character will yet come under my observation, in which I shall have an opportunity of giving them the benefit of a second operation for the restoration of vision.

The results will probably not bear very favourable comparison with those obtained in European ophthalmic hospitals. But I have already mentioned that a large number of the persons operated on were very poorly nourished and in indifferent health, as also that an operation was undertaken in all cases in which I entertained any hope of vision resulting from it. There were in addition several other circumstances which militated against the prospect of a high percentage of success. The force of this statement will be appreciated when I mention that the hospital in which these cases were treated is in no way adapted to the requirements of ophthalmic patients, being suited merely for the accommodation of ordinary surgical and medical cases; and that, in order to prevent overcrowding, some of the patients had frequently to be accommodated in the verandahs of the hospital. But the greatest difficulties one has to contend against in the practice of ophthalmic surgery in India have their origin in the ignorance and obstinacy of the patients themselves, owing to which it is very difficult to induce them to carry out all the details that are essential in the after-treatment; to caste prejudices, in consequence of which very few of them will take food prepared by another, so that should there be any sight in the eye not operated on, they insist on going about and cooking their own food; and to their implicit belief in Kismat, or fate, which renders them careless, believing that the result of the operation depends more on the will of fortune than on attention to details in the treatment. In consequence of these considerations, it is extremely difficult, no matter how watchful or attentive the hospital assistants may be, to prevent the patients from removing the bandages, and exposing the eyes to light almost immediately after the operation, and in indulging in other imprudent acts of a similar nature. When we reflect on the frequency with which all precautions and instructions are neglected or set at defiance, the only wonder is that complications fatal to vision do not supervene more frequently than they do.

As in the case of all other surgical operations undertaken in India, the success which attends the operation of extraction of the lens varies very considerably with the season of the year in which it is performed. I insert below a table showing at a glance the number of cataract operations performed, with their results, during each month of the year:—

Month.	Number of Cataracts operated on	Results.		
		Successful.	Partially successful.	Otherwise.
January	48	34	6	8
February ...	46	38	4	4
March	52	39	5	8
April	38	28	0	10
May	39	27	3	9
June	29	15	0	14
July	42	23	6	13
August	35	20	3	12
September ...	21	8	3	10
October	44	22	5	17
November ...	42	34	1	7
December ...	70	54	4	12
Total ...	506	342	40	124

From this table it will be observed that the results obtained in the winter and spring months, which, with the exception of the month of April, which is transitional between the cold and hot weather, correspond in India with the cold season, were much more satisfactory than those obtained in the summer and autumnal months, which correspond with the hot and rainy seasons. Of the 296 cases operated on during the former period, 247, or nearly 84 per cent., obtained either good or fair vision; whilst of the 210 cases operated on during the latter period similar results were obtained in only 135, or somewhat less than 64 per cent. It would thus appear that the cold weather is much more favourable for undertaking the operation of extraction of the lens than either the hot or rainy season. Indeed, I found that unfavourable complications were so liable to supervene in the hot and rainy months that I frequently had to stay my hand from operating for several consecutive days. September, when the rains are at their climax, I have found the most unfavourable month for operating, sloughing of the cornea and suppuration of the globe having in that month destroyed nearly one half of my cases. The success which attends the operation of extraction of the lens is so much better during the cold weather than during either the hot weather or rains, that it is to my mind questionable whether the operation is justifiable during the latter seasons. I have no hesitation in saying that, when practicable, the operation should be deferred till the cold weather, the prospect of a successful result ensuing being then much greater.

In cases in which both eyes are affected with cataract, my practice has always been to operate on one eye at a time. The second eye I operate on as soon as the first eye has recovered from the effects of the operation on it, before the patient leaves hospital, but not till all signs of irritation arising from the first operation have subsided. I do not think that any advantage is to be gained by deferring the operation till a future time. As a general rule the patients improve in hospital during their residence there, and, on recovering from the first operation, are in a state of health more conducive to a successful result ensuing than at the time of their first admission.

The average time spent in hospital by the patients for each operation was eleven days nearly. This would seem a very short period for patients subjected to an operation for cataract to remain in hospital, but it was not practicable to keep them longer for various considerations, especially in consequence of the limited hospital accommodation available.

It may seem strange that in cases of soft cataract some other mode of treatment than extraction of the lens was not had recourse to. I am of opinion that, except in cases of infantile cataract, the operation of extraction is the most suited to the peculiarities of the natives of India in all other varieties of cataract. The operation of solution is unpopular amongst them, owing to the length of time that it takes to effect a cure. The estimation in which the relative merits of extraction and solution of the lens are held by the natives bears a remarkable analogy to that in which the relative advantages of lithotomy and lithotrity are regarded by them. For whilst in case of stone in the bladder the native is always willing and anxious to undergo the operation of lithotomy, owing to the fact that it has the effect of removing once and for all the source of the disease, it would be extremely difficult to induce him to submit to the numerous "sittings" that are involved in the treatment of lithotrity. Similarly in case of cataract, if the operation of solution of the lens be undertaken, the native, impatient under the repeated operations, will, as a general rule, abscond from hospital before the completion of the proceedings that are essential for the restoration of vision, bearing away with him anything but flattering impressions as to one's surgical skill.

The modified von Graefe's method of removing the lens is the operation which I prefer, and which I now almost invariably employ. I have had considerable experience of the modified linear operation described by Macnamara, and some experience of the flap operation. I am aware that the former operation is highly thought of by some surgeons; but in my hands at least neither of these operations has been attended by nearly as favourable results as the von Graefe's method of extracting the lens. But whatever the method of extraction adopted may be, my experience is that the most essential point in its performance is that the knife used be thoroughly sharp, so that the corneal tissue may almost fall before the edge of the knife without any force on the part of the surgeon. The keen edge required for this purpose can only be ensured by constantly sending the knives to England to be set.

Of the sequelæ by which the operation of extraction of the lens is liable to be followed the most commonly met with in India is suppuration of the wound, generally terminating in sloughing of the cornea or suppuration of the globe. This is the most dangerous complication of the operation one has to contend against in this country. In more than two-thirds of my cases which terminated unsuccessfully the result was due to this cause. Though liable to

occur at all seasons, it is more so in the hot weather than in the cold; but the rainy season is that in which this complication supervenes most frequently, runs its course towards destruction of the eye most rapidly, and is least amenable to treatment. But though the hot weather undoubtedly exercises an unfavourable, and the rains a pernicious, influence in inducing this complication, the primary and most important cause of its occurrence is to be found in the wretchedly nourished state in which the majority of the patients come into the hospital. Were it practicable, it would be extremely advisable that most of the patients who present themselves suffering from cataract should be subjected to preparatory treatment, with a view to improving their health previous to operating. To anyone acquainted with the native character and the working of Indian civil hospitals the impracticability of carrying such a practice into effect will be apparent. A most characteristic feature in the natives is the scepticism as to one's surgical skill that is engendered in his mind by any delay in operating. It is common in Indian hospitals to meet with patients who, on admission, are solicitous to be put on the operating-table, but when asked to remain in hospital to undergo treatment preparatory to the operation, lose all confidence in the surgeon, and abscond under the impression that the delay in operating is due to doubt on the part of the surgeon as to the prospect of a successful result ensuing.

When suppuration has once set in it is rare to find a case recover, sloughing of the cornea or suppuration of the deep parts of the eyeball following as a general rule. In some few cases, however, in which the suppuration was confined to the seat of the corneal incision, the patients recovered with useful vision. My experience is that when there is any tendency to suppuration any mode of treatment depressing to the system is to be deprecated. On the contrary, under such circumstances, a tonic and stimulating treatment should be had recourse to at an early date. There is no doubt that the most successful way of combating this dire complication is to improve the health of the patient before undertaking the operation, but when this is impracticable the patient should be placed on a liberal diet with alcoholic stimulants, and have a tonic of quinine and iron administered to him from the day he enters hospital. In addition to these measures, when any tendency to suppuration displays itself I am in the habit of ordering hot poppy fomentations for half an hour three times daily, and a large pad with firm bandaging to the eye during the intervals, and I think that in this way I have saved many an eye.

Next to suppuration of the cornea the complication which occurred most frequently after the operation was iritis. Indeed, with the exception of about a dozen cases in which no vision resulted, owing to internal hæmorrhage, large escape of vitreous, or some previously existing deep-seated disease of the eye, all my unsuccessful results were attributed to these two sequelæ. As might be expected from the description of the patients which I have already given, the variety of iritis that occurs is generally of a low type, and if not quickly checked has a tendency to terminate in suppuration. In order to guard against the supervention of this complication great care in the performance of the iridectomy is essential. The most important points to be attended to are that the iris should be withdrawn outside the corneal wound very gently, and not put on the stretch; that the excision should extend through the whole width of the iris, leaving behind a mere slit only; and that the extremities of the divided iris be carefully replaced within the aqueous chamber, so that they may not be incarcerated between the lips of the corneal wound. When, in spite of all precautions, iritis does supervene, the measures I have found most effective in the treatment of this complication are, the introduction into the eye of a drop or two of sulphate of atropine solution (four grains to the ounce) three or four times in the twenty-four hours, in addition to the external application of extract of belladonna round the orbit; the administration of morphia both internally and by hypodermic injection, to relieve the pain; complete avoidance of exposure of the eye to light; and the administration of iodide of potassium in five-grain doses three times a day. Formerly, in cases of iritis supervening, in strong persons, after the operation of extraction of the lens, I invariably administered mercury, but I have not found its exhibition in such cases attended by the happy results that generally follow its administration in cases of ordinary idiopathic or traumatic iritis. I now almost invariably give the iodide of potash in cases of iritis following the operation of cataract extraction, and consider that it is far superior to mercury in preventing effusion of lymph and in facilitating its absorption.

DEATH FROM EXTRA-UTERINE PREGNANCY SIMULATING ACUTE IRRITANT POISONING.

BY FREDERICK A. GRAY, L.R.C.P. LOND., M.R.C.S.

THE following case seems to be worth recording on account of its having given rise to a suspicion of poisoning. The chief points in the case appear to be—Firstly, the suddenness of the onset of symptoms soon after a meal; secondly, their rapidly fatal character; thirdly, the severe vomiting; and, fourthly, the severe purging, which has rarely, if ever, been described as occurring in similar cases. These symptoms, occurring in an apparently healthy young woman, were so suspicious that the coroner considered an inquest necessary, and makes the case one of some toxicological interest.

S. H——, aged twenty-six years, was a married woman, and has had four children; was last confined one year and nine months ago; has been suckling the child ever since. Her husband believes she has seen her courses for several months past irregularly. On January 4th, 5th, and 6th there was a bloody discharge from the uterus, and she thought her courses had come on. On the afternoon of the 6th she said she felt something in her stomach, but she seemed to be in her usual health and said nothing more about it. On the 7th she took some broth at about 8 P.M.; at 9 P.M. she said she felt a pain in her stomach. This was quickly followed by vomiting and purging, which increased in severity. She died at about 11 P.M. in a state of collapse. I was sent for, but found life extinct on arriving. As I could not give a certificate of the cause of death, an inquest was decided on by the coroner, after some delay.

A post-mortem examination was made on the 12th, the weather in the interval being dry and frosty. The body was found well nourished. Rigor mortis was well-marked. There were no marks of any kind about the body, mucous membrane of mouth, &c. On opening the abdomen a large clot of blood became visible at the lower part, covering the great omentum. There was no evidence of inflammation. The bowels were collected in coils close to the spine, and were perfectly empty, except that they contained some round worms. The lower part of the abdominal and the pelvic cavities were filled with blood, measuring about two quarts. On examining the pelvis carefully, the uterus was found to be slightly enlarged; the ovaries were normal in size and position. On the right side, however, apparently in the broad ligament, was found a mass about the size of a walnut. The pelvic contents were removed altogether, and examined. The tumour mentioned above was found to be connected with the Fallopian tube, about an inch and a quarter from its fimbriated extremity. A bristle passed readily down the tube, till it was arrested by the mass. The mass consisted of blood-clot, over which the Fallopian tube was so stretched in parts that its structure could hardly be recognised. Unluckily the parts were preserved in spirit for some days, so that when the tumour was examined the fœtus could not be made out among the clots of blood, though in parts villi were plainly recognisable. The veins in the immediate neighbourhood of the tumour and in the broad ligament were much enlarged. At about the middle of the mass, at the back, was a hole of the size of a pea, with ragged edges, through which the blood found in the abdomen had evidently been poured forth. On opening the enlarged uterus the lining membrane was found thickened, and there was a small quantity of blood-stained mucus. The openings of the two Fallopian tubes were visible, and a bristle passed readily through the left, but was arrested on the right by the mass. The ovaries were normal, and the right had a well-marked corpus luteum. The large vessels in the abdomen were quite natural. All the other organs were healthy. The brain was not examined.

Ottery St. Mary.

THE CLIMATE OF MADEIRA.

BY M. C. GRABHAM, M.D., F.R.C.P.

ALTHOUGH it must appear to nearly everyone who heard, or has since read an account of, the recent discussion at Cork on the therapeutic value of cold mountain air in phthisis, that the president of the section exercised a wise discretion in withholding the expression of any concurrence of opinion with the views variously stated, I, for one, do not hesitate to state my frank agreement with Dr. Bennet in ascribing, to a great extent, whatever immunity certain districts may enjoy—if there is any exemption—from phthisis, to an open-air mode of life, hygienic precautions, and a moderately equable climate.

For whatever separate share of success diminished pressure, cold, altitude, or antiseptic air may ultimately obtain, no such group of circumstances can yet show any claim to pre-eminence in the treatment or prevention of phthisis; whilst, even in London itself, we often find that the poor man taken suddenly from his home of sickness, filth, and starvation to the comfort and care of hospital treatment shows a measure of benefit quite comparable to that which the rich patient, pent up in cold damp weather—the comforts of an English home notwithstanding—has to seek in the warmth and equability of Mentone or Madeira. The advantages of treatment are relative up to a certain point, and then certain favourable circumstances show a specific value; but beyond this we are all working to find out whether the conditions of absolute security exist. At present we have not got very far.

The purpose of the present communication, however, is more immediately practical, for I gather that there is an unusually widespread disposition on the part of those who spend their winters abroad to go *presently* to Madeira, presumably because Madeira was remarkably and singularly exempt from severe weather last winter, and also because the present English summer proves to be a season of protracted rain and uncertainty. Some disappointment will be saved, I therefore think, if I may state that, although the Quintas (villas) on the mountain slopes of Funchal offer a charming perennial climate of moderate uniformity, it is unwise for invalids, as a general rule, to establish themselves in the town of Funchal until the long period of summer weather has been broken by autumnal rain.

Moreover, notwithstanding the excellence of the Funchal hotels, I am bound to say that the Quintas offer at all times certain advantages of greater value—viz., their situation amidst beautiful scenery; the calmness and purity of their atmosphere; and their gardens, in which a very delicate person may sit out of doors for many hours almost every day in the year. Invalids, moreover, get on better when they do not congregate together; they breathe a purer air; they suffer less from diarrhœa; and they do not acquire the morbid and depressing habit of comparing symptoms.

From Davos I expected to hear much more than has been said about the stillness of the atmosphere, and also, speaking from Madeira, something about a marked immunity from atonic diarrhœa; and I am not disposed meanwhile to weigh a vague, speculative quality of antiseptic air against the tried advantages of open-air life, mild equability, and favourable hygienic conditions.

It may not be out of place here to mention, in connexion with the lull which frequent changes of air often bring about in chronic ulcerative phthisis, the recent development of steam communication between Lisbon, Madeira, and the Western Islands, the latter as yet little visited by English people, though rich in natural beauty and active volcanic phenomena. The Azores have a somewhat humid climate, but there is much fine weather and sufficient solar heat to ripen many of our finest fruits in midwinter. By and by I will offer a detailed description of the Azores, their sulphur baths, and other important points of interest. At present I only wish to say that the steamer alluded to threads its way through the Western Archipelago, stopping a few hours at each island, and that the tour is becoming a common incident in the winter sojourn at Madeira.

Alfred-place, South Kensington.

THE DIAGNOSIS OF VARIOLA FROM VARICELLA VERA.

BY M. D. MAKUNA, L.R.C.P. LOND., &c.,
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WITHIN the last seven months thirty-six cases of varicella have been brought to my knowledge. Thirty-three of these were mistaken for those of variola. Sixteen were admitted to the hospital; they were either vaccinated or revaccinated, and did not take small-pox. Three cases occurred in the hospital, caused by those admitted through misadventure. Last year I had two cases of varicella. In one the revaccination was unsuccessful, but, as the patient was well vaccinated, he took variola in a mild form; another was an unvaccinated child, who fortunately got over it. Observing that such a mistake is on the increase, as chicken-pox is prevalent in the west of the metropolis, and the long run of the epidemic of small-pox has not yet ceased, I take this opportunity of indicating the way in which a diagnosis may be arrived at, and thus prevent recurrence of such mistakes as far as it is possible. I need hardly add that it is of paramount importance to do so before advising the removal of patients to small-pox hospitals.

Varicella is not known to be fatal, and is a very mild disorder; while variola, apart from its high fatality, deprives many a one of comely complexion, and mars the beauty—a sad loss most keenly resented by the possessor in the present age of refinement. We all know that the period of incubation, or the pre-eruptive stage, is nearly the same in both complaints. It does not vary so much in variola as it does in varicella. In my four cases of varicella the period of incubation was respectively seventeen, thirteen, twelve, and nine days. Dr. Gee gives it as about a fortnight. In Dr. Murchison's case it was eleven days. Dr. W. Squire gives it as between ten and twelve days. M. Trousseau and Mr. Hutchinson each state it to be from four to seventeen days. Dr. Thomas, of Leipsic, gives it as from thirteen to seventeen days; and Mr. Erasmus Wilson, from four and seven to fourteen days. In Dr. Steiner's eight successful cases of inoculation of varicella the period was eight days. The pre-eruptive stage in variola is stated generally to be fourteen days. From my observations I find it to be between twelve and fourteen days; but it varies from nine to twenty-one days. Again, the primary fever in both does not give any clue to distinguish them, especially when the prodromata are not marked in variola, as is usual in vaccinated children, in whom the disease is modified and most likely to be mistaken. In variola, it is said that this initiatory fever is characterised by backache, pain in the epigastrium, sickness, and headache. But in many cases the first two symptoms are absent. In many standard works on medicine the invasion stage is said to last forty-eight hours in variola, and twenty-four in varicella. No doubt we do get such a history in many cases; but this statement, I must say, is arbitrary and not precise, so that there is no feature to be relied upon during the course of the pre-eruptive stage to make a certain diagnosis. Curschmann observes, "if we now pass to the consideration of the first stage of variola, we shall find that in many cases, especially of varioloid, the early symptoms are so vague, undetermined, and various, that no diagnosis is possible until the characteristic eruption appears." It would be out of my province to enter into a discussion on the point in this paper, and I forbear making further remarks.

The distinguishing features are made evident soon after the manifestations of the diseases. In variola the eruption is first papular, then vesicular, and finally pustular. In variola varicelloides the pustular stage is abortive. The papules are always felt hard, of nearly the same size wherever they are distinct, and may or may not be felt shotty within the skin at the commencement of their appearance. It takes about three days for a papule to become a vesicle, and between two and three days for a vesicle to turn into a pustule. In the majority of cases the vesicles are umbilicated, especially among the unvaccinated class, but not universally so among the vaccinated. The pathognomonic feature of the vesicles in variola is that they are *always multilocular*, and cannot be emptied of their contents by a

single puncture with a pin or a needle. The contents of the vesicles are "plastic and viscous." In varicella the papular stage does not last for many hours. The spots are unequal in size, and on the second and third day they are seen in all stages, as fresh crops come out every morning. The vesicles are superficial, more or less globular, with an undefined areola around them. The fully formed vesicles are *unilocular*, and can be emptied of their contents by single punctures. The lymph is "serous and watery." I have found this a most trustworthy diagnostic feature between the two diseases. Mr. Hutchinson, in his recently published "Lectures in Clinical Surgery," states: "Again I have to express dissent from the popular opinion that the chicken-pox vesicles are always globular. On the contrary, they often, if looked at minutely, show an uneven surface, as if formed by successive effusions. In such cases a single prick does not suffice to remove the whole of the fluid. The assertion that the vesicle is globular, a mere blister with a single cavity, must be taken with limitations." Dr. Tilbury Fox and Mr. Erasmus Wilson, the two eminent dermatologists, state that the vesicles in varicella are unilocular. Dr. Thomas, in his article on Varicella, in Ziemssen's Cyclopædia, states, "When a fresh vesicle is punctured it gives out a clear, or at most very slightly turbid fluid, at first small in amount, but later comparatively considerable, but never sufficient to cause complete collapse of the vesicle; it is evidently not a single vesicular formation, but possesses originally delicate septa, subdividing into single fans, which, nevertheless, can finally run together in whole or part from tearing open their partition walls." So, practically speaking, as he means to say, the fully-formed vesicles are unilocular. Were the vesicles to be multilocular they would be much more irregular in shape than they are observed from the rapid and profuse exudation. They have been described by some as umbilicated, as they are in variola, but the phenomenon is caused by the desiccation of the lymph at the dome of the vesicle sooner than in other parts. The difficulty of evacuating all the spots arises from the fact that all of them are never in one stage. Some are papular or just commencing to vesiculate, while others are vesicles either fully formed and globular, or undergoing desiccation. In this last stage, while tearing through the walls of the vesicles, I have removed clots of dried-up lymph.

The object of this paper has been to draw the attention of the profession to this point, and to the means of arriving at a correct diagnosis between these two disorders, one of which is never fatal, and the other one of the direst and most loathsome legacy of humanity. When there is reliable history of exposure to the infection, the nature of the disease is evident, but unfortunately this is not always to be had.

Fulham.

RADICAL CURE OF HYDROCELE.

By JOHN D. HILLIS, F.R.C.S.

HYDROCELE of the tunica vaginalis being very commonly met with in tropical climates, it becomes a matter of some practical importance to those practising there to understand what treatment is most likely to effect a radical cure. The injection generally recommended in text-books (composed of one part of tincture of iodine and two or three parts of water) will do this in but a small proportion of the cases operated on, occasioning, in many instances, disappointment and loss of time. Mr. Osborn, writing on the subject, gives the results in his hands of the diluted iodine injection operation as follows:—"Out of 54 cases operated on 19 had been previously injected unsuccessfully. Of these 54 he lost sight of 29, and in 18 of the remaining 25 the hydrocele recurred"—not a very satisfactory record of the operation, even if the 29 lost sight of had been all cured by it.

I have for some time past used for the purpose the *undiluted* tincture of iodine of the British Pharmacopœia, and abandoned, after a fair trial, nearly all the others. I inject a small quantity, from two to four drachms, according to circumstances, and, if possible, at the first tapping; the smaller the quantity injected the safer the operation, and less risk of infiltration. After injection the sac should be well but gently manipulated for some time. The results have been so satisfactory that, simple as the matter may be, and old as the suggestion perhaps is, I do not think it has been sufficiently recognised by teachers as a procedure recommended to be adopted; I therefore bring it forward for the benefit of my junior brethren practising abroad. I have selected the following cases from my note book as illustrating this mode of treatment in persons of different nationalities.

1. E. H——, European, aged twenty-six, a planter; double hydrocele three years. A surgeon injected the right side with the ordinary iodine injection in 1877, but the hydrocele recurred. Tapped the left side in May, 1878, and injected equal parts of tincture of iodine and water, which also failed to effect a cure. On the 17th June, 1878, the right side was again tapped, and this time I injected three drachms of pure tincture of iodine, and manipulated the parts well for some time. Very little pain was experienced. In two days the parts were well swollen, and in ten days that side was cured. Subsequently I performed a similar operation on the other side with an equally satisfactory result. There has been no recurrence of the disease.

2. T. K——, a negro, aged thirty-seven, blacksmith; large hydrocele of right sac, from which over four pints of fluid were evacuated; had been previously unsuccessfully injected with diluted iodine. On the 5th June injected six drachms of pure tincture of iodine. The patient experienced very little inconvenience (a gland slightly enlarged in the neighbourhood), and he was discharged cured on June 16th.

3. Enyek, a Hindoo, aged twenty-five; double hydrocele. Left side previously injected unsuccessfully with the diluted tincture of iodine. On the 5th December, at the Helena Hospital, injected right side with half an ounce of pure tincture of iodine. Discharged cured on the 16th December. Readmitted on the 21st December, and the left side, where there is some chronic enlargement of the testis, injected in the same way, the patient being discharged cured on the 31st December, 1878.

British Guiana.

CASE OF TETANUS FOLLOWING BURNS; RECOVERY.

By JAMES COULDREY, M.R.C.S.E., &c.

THE following case may be deemed of sufficient interest to be placed on record in THE LANCET:—

George S——, aged thirty-six, a workman at the Trent Iron Company's blast furnaces, had both his feet badly burned by stepping on and sinking into a hot slag-ball on June 22nd, 1878. The skin and subcutaneous tissues were destroyed around the ankles and over the dorsal aspect of both feet, including the toes; the great toe of the left foot was more deeply burned than the rest. The burns were dressed with carron oil, and subsequently poultices were applied to promote separation of the sloughs.

On July 9th he complained of his jaws being stiff, also pain in the small of the back; left foot very painful; wounds healthy and granulating. Ordered a pill containing one grain of opium powder and four grains of extract of hyoscyamus every four hours. Wounds dressed with carbolic acid and zinc ointment.

10th.—Jaws stiff, can just get point of finger between them; bowels open; pulse 70. Wounds dressed as before; to continue pills, and take plenty of fluid nourishment.

13th.—Jaws and back about the same; manages to get pills down; has taken fluid nourishment; twitchings of muscles of left leg noticed; wounds look healthy. Ordered a mixture of bromide of potassium, twenty grains for a dose, every two hours; the pills as before; to have an aperient pill.

14th.—Stiffness of the jaws somewhat better; muscles of the back very hard and tense; notwithstanding aperient medicines the bowels are not moved. To take another aperient in the shape of a draught. In the evening jaws about the same; tongue and skin moist; temperature 99·2°; pulse 80; bowels not moved; small of the back arched and raised from the bed; abdominal and dorsal muscles tense; says he is in great agony. Whilst trying to give him some nourishment he uttered a cry, and was turned to his left side, the body being arched (pleurothotonos); on getting on his back again he had another attack, this time arching his back (opisthotonos). These spasms

continued every few minutes. An enema was administered with no satisfactory result. Later in the evening I met Dr. Goodworth in consultation. Ordered fifteen grains of chloral hydrate and ten grains of bromide of potassium in a mixture every two hours; a pill as before occasionally, if there be much pain; wounds to be poulticed.

15th.—Visited him frequently during the night and day. Stiffness of the jaws better still; opisthotonos and pleurothotonos less frequent; touching him, or shouting loudly, induced a spasm; bowels not moved; wounds healthy, and were dressed with carbolic oil; left leg very painful and stiff. Administered an enema with no result. To continue medicines, and have plenty of nourishment, and take five grains of calomel.

16th.—Visited him frequently; jaws about the same; tongue dry; bowels not moved; pulse quick; skin dry and hot; intellect clear; spasms less frequent; takes pills and medicine. Ordered another dose of calomel; wounds dressed as before.

17th.—Spasms continue better; abdominal and dorsal muscles less tense; bowels not opened; pulse quick; temperature 103·2°. Administered an enema with copious result; continue medicines.

18th.—Temperature 102°; pulse quick; skin perspiring; tongue dry; bowels very loose. Takes both pills and mixture.—Evening temperature 101°. Better in every respect. Leg free from pain; spasms less frequent; bowels moved. To continue medicines; wounds dressed as before.

19th.—Still improving. Spasms limited to slight twitchings; leg rather painful and muscles rigid; bowels open; temperature 98°; abdominal and dorsal muscles softer; back rests on the bed; sweats profusely. Mixture and pills to be taken less frequently. Wounds granulating, and were dressed with carbolic oil.

From this date he progressed favourably but slowly. His back and leg continued stiff, more or less, for two or three months. The wounds gradually cicatrised, except at the base of the left great toe, where a wound rather smaller than a threepenny piece still remains.

The above was a very severe case of tetanus, and benefited, I believe, by the medicines exhibited.

Scunthorpe, near Brigg.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

ST. THOMAS'S HOSPITAL.

(OPHTHALMIC DEPARTMENT.)

CASES OF TOXIC SYMPTOMS FROM THE USE OF DUBOISIN DROPS.

(Under the care of Mr. NETTLESHIP.)

IN the following cases, for the notes of which we are indebted to Mr. A. D. Davidson, constitutional symptoms, varying in severity from slight transient giddiness to violent delirium, followed the use of this new mydriatic. It may be stated that the preparation was a perfectly clear, colourless solution of sulphate of duboisin, four grains to the ounce, very carefully made by Mr. Plowman, the apothecary to the hospital, from a dry crystalline sample supplied by Messrs. Corbyn and Co. In Case 8 the solution was obtained from Mr. Martindale. The preparations, therefore, may be taken as quite pure. When the supply of the pure alkaloid becomes large enough to ensure uniformity of strength in the solutions made by different chemists, it may be unsafe to prescribe a four-grain solution of sulphate of duboisin, and the use of the drug for rapidly dilating the pupil or paralysing the accommodation in the out-patient or in the consulting-room may not be free from disadvantage. It remains to be seen whether a solution of duboisin weak enough to be free from risk will have any advantages over atropine.

CASE 1.—E. H——, aged seventy-six, male, with cataracts, was admitted on March 25th. Two atropine drops (four grains to ounce) were put into his eyes; half an hour later, the pupils not being widely dilated, four drops of duboisin solution were used (single drops from a very small pipette). Half an hour afterwards the man was taken from his seat to go into the dark room, when he seemed drowsy, staggered, and said he felt giddy. After waiting a few minutes another attempt was made to remove him, with the same result; he staggered over to his right side and had evidently lost power in his legs, the right being the weaker; he was then taken to the ward. When seen by Mr. Nettleship one hour later he was delirious, constantly picking at his things and talking of home, and had been struggling and requiring two nurses to hold him. During the night he became more violent. Next day he was much better; could stand, but felt weak, and complained of his fingers feeling numb.

March 27th.—Almost well again.

He remained in the hospital for three months and complained to the last that his fingers were numbed; "they were all right till I came here," he said. Whilst delirious he was seen by Dr. Sharkey, resident assistant-physician, who found the urine free from albumen. He was a feeble old farm labourer. A four-grain solution of sulphate of atropine was used three times a day for many days after the extraction of his cataract without any symptoms showing themselves.

CASE 2.—H. L——, aged sixty-seven, carpenter, was admitted for injury to the left eye nineteen days before. The globe was enucleated. Three weeks after the excision iritis came on in the right eye, and, as the pupil would not fully dilate with atropine, duboisin solution was ordered to be used every two hours (as an out-patient). It was begun on April 9th in the afternoon. Next day he was admitted as an in-patient at 4 P.M., and duboisin was continued every two hours from that time. The patient was very restless all night, but he calmed towards morning. At 10 P.M. on the following day he became restless and partly delirious, pulling the clothes, and required to be watched all night. Duboisin was stopped at 2 A.M. on the morning of the 12th. At noon of the same day he was not delirious, but answered questions incorrectly, and forgot he had taken his breakfast. There was no special dryness of mouth. Duboisin was used twice again, after which he became delirious, and in the night required a porter to watch him.

At 2 A.M. on the 13th he had morphia subcutaneously injected, and also a small opium draught. He slept from 5 A.M. to 6 A.M. Gradually improved. He slept well that night, and next morning was quiet and rational. He did not remember what had happened. Sulphate of atropine (four grains to the ounce) was used from this date several times daily for more than a week, without producing any toxic symptoms.

CASE 3.—E. T——, aged seventy-five, female, May 6th, attended as out-patient with cataracts. One small drop of duboisin to each eye quickly caused very wide mydriasis. In two or three hours after instillation she staggered in walking, and said "she felt as she had never felt before;" there was slight incoherence of speech; no absolute delirium. She was admitted to the ward, and next morning was herself again.

CASE 4.—R. B——, aged sixteen, female, had ulcer of cornea. On May 10th atropine was ordered three times a day; increased next day to every two hours. In the afternoon of the 12th the pupils were only half-dilated, and duboisin was ordered six times a day. The patient was restless all night, having slept well before. In the morning she complained of giddiness and dryness of throat; duboisin was used twice more (five times altogether). The pupils were fully dilated and duboisin discontinued. The symptoms quickly disappeared.

CASE 5.—C. H. N——, aged twenty-five, a medical student, used duboisin in order to try the rapidity with which it paralysed the accommodation. A drop of solution of duboisin was applied at 2 P.M., and repeated twice at intervals of half an hour. At 4 P.M. he felt dizzy and made some inaccurate remarks, which he did not afterwards remember. One or two hours afterwards he was able to go home without assistance, and felt quite well next day.

CASE 6.—A. S——, aged twenty-eight, female, with ulcers of cornea. At first used duboisin six times a day, and after

two days thrice a day; the sixth day it was used only once, and then discontinued because the patient felt dizzy and complained of dryness of the mouth.

CASE 7.—J. E——, aged thirty-six, male, had traumatic cataract of some years' standing. Duboisin was used for examination. The patient said it made him feel "tipsy," and he became very pale and could not walk straight. No tendency to delirium. He was soon quite well.

CASE 8.—Mrs. ——, aged thirty-five; myopic astigmatism. Two single drops of duboisin solution were applied to the right eye. After waiting half an hour she felt uncomfortably giddy, and had difficulty in walking quite straight. There was no dryness of throat. After examination she rested for an hour, but was still giddy when she left. On her way home she felt as if she did not know where she was going, and on that and several succeeding days her head felt vacant, and she found herself not understanding or not hearing what people said. She is tall, pale, nervous, and not in strong health.

CITY OF LONDON LUNATIC ASYLUM.

CASE OF CARCINOMA OF RIGHT BREAST IN A MAN.

(Under the care of Mr. WHITFIELD PERKINS.)

ABOUT eighteen months ago, a hard, lobulated, painless swelling was noticed in the right breast of a man, aged forty-nine, an inmate for thirteen years. After remaining thus for many weeks, it suddenly enlarged, softened, and fluctuated. A free incision was made, and eight or ten ounces of pus were evacuated, but the wound never healed. The mass grew hard and vascular, puckering and infiltrating the skin, retracting the nipple, and exuding a sanious discharge from a small ulcerated surface. The axillary glands were not involved; there was no cachexia. The man appeared in robust health, and on the morning he was operated on was scrubbing the floor until the moment he was called away.

The operation was performed on May 6th. When fully under the influence of chloroform, an incision was made round the tumour, well outside the limit of the involved skin. The tumour was cleanly and entirely detached and removed; some eight or ten spouting points were twisted, and two large jetting ones were ligatured. The wound was cleaned and dressed antiseptically. During the night following the operation the patient tore off the dressings, and considerable venous hæmorrhage resulted, but subsequently he made a rapid recovery, without an untoward symptom. Thirteen days after the operation he was able to get up, and shortly afterwards resumed his ordinary industrious avocations.

The tumour was a medullary cancer, and is now in the museum of Guy's Hospital.

HITCHIN INFIRMARY.

REMARKABLE ACCIDENTS.

(Under the care of Dr. O. H. FOSTER.)

CASE 1. *Fall from a Cart; the left External Iliac Artery torn asunder; Death.*—On June 10th, J. P——, aged sixty-seven, was driving a one-horse waggon at a foot pace down hill; he was seated on a small cask of beer in the waggon on the off side. The near side wheels ran up the bank and the waggon upset. J. P—— fell into the road (clear of the waggon and horse) on to his left side, which was probably accounted for by the cask twisting round as he fell. He was slightly stunned by the fall, but recovered consciousness almost immediately; he found himself unable to stand and was taken in a cart a distance of about a mile to the infirmary. Happening to be in the building at the time, Dr. Foster saw him as he was being put to bed; he was quite conscious, but his appearance was extremely bloodless. He said he was only shaken, and expressed a wish to go home, a distance of eight miles; but he was advised to stop in the infirmary for a few hours to recover from the shock he had sustained. He had a slight contusion on the left temple; he moved his various limbs to prove that he was only shaken. His clothes not having as yet been removed, his body was not examined at the time for bruises, but orders were given that he should be kept in bed with hot bottles to his feet, and have beef-tea, brandy, &c. While the nurse was undressing him, she noticed some subcutaneous extravasation of blood in the left groin, and the patient complained of great coldness in the left leg; he took beef-tea, brandy, &c., and seemed fairly comfortable, but gradually sank and died about six hours after admission.

The necropsy was performed next morning. There were marked evidences of extravasation of blood in the left groin, lower part of abdomen, buttock, and scrotum. On careful examination it was found that the left external iliac artery had been completely snapped across, just above Poupart's ligament, and that the surrounding tissues were infiltrated with blood, the scrotum being distended with blood to a considerable extent. No other injuries, visceral or otherwise, could be discovered, except a slight abrasion on the left temple. The spleen was preternaturally small.

Remarks by Dr. FOSTER.—It seems strange that a man with so severe an injury should have lived as long as seven hours afterwards, and that at the time I saw him—namely, about half an hour after the accident—he should have had no symptom (though at the time quite conscious) to direct my attention to the nature of the injury. Supposing the exact nature of the injury to have been diagnosed, would one have been justified in any attempt to secure the two ends of the ruptured artery, or would any attempt to do so only have hastened death?

CASE 2. *Wound with an Axe through the external Malleolus and into the Astragalus; Recovery.*—On May 5th, C. D——, aged twenty-three, a strong healthy man, was conversing with a woodman who was felling a tree with an axe (using his axe at the time "backhanded"). C. D—— inadvertently advanced his right leg in the way of the axe, and received the whole force of the stroke on his outer ankle. He fell to the ground bleeding profusely. The woodman, after tying a pocket-handkerchief round the wound, went for assistance, leaving him alone in the wood for more than half an hour. He was then taken in a cart a distance of six miles to the infirmary, arriving there in a very exhausted condition. The dispenser at the infirmary had the forethought to adjust an Esmarch's elastic bandage round the patient's thigh before removing him from the cart, thereby probably saving his life. Dr. Foster saw him about half an hour after admission, and found that the skin and soft parts (tendons, &c.) had been divided transversely by a clean-cut wound about four inches long, the outer malleolus being cut quite through, and there being a deep cleft into the body of the astragalus; the anterior tibial and peroneal arteries were divided. Both ends of these arteries were tied. The limb was placed on a "Paget splint," with a swing cradle, and lint soaked in carbolised oil was placed over the wound; it was not deemed advisable to bring the edges of the wound together.

The patient made favourable progress; the ligatures came away in due course; the wound granulated slowly. There was some slight burrowing of matter, more particularly just below the inner malleolus, the matter probably making its way between the shaft of the tibia and the tendo Achillis. This matter was let out by a free incision, and a drainage-tube was inserted. After the first few days the original wound was dressed with "red lotion" (sulphate of zinc and tincture of lavender). Occasionally, when required, for a day or two at a time, a drainage-tube was inserted into the wound. On June 25th a small, irregular piece of bone made its way out of the original wound, which was then slowly closing up. There was every prospect of the patient having a useful leg.

NURSES' TRAINING HOME, GLASGOW.

ORTHOPÆDIC CASES.

(Under the care of Mr. J. CRAWFORD RENTON.)

CASE 1. *Double Genu Valgum.*—D. K——, aged ten, was admitted on October 1st, 1878, affected with knock-knees, both legs forming an angle of 35° with the thighs, the distance between the heels when the patient was lying down being twenty inches.

On Oct. 7th, assisted by Drs. Lyon and Wallace Anderson, Mr. Renton divided the femur and tibia in the right limb, using the chisel to accomplish this in part, according to the plan recommended by Dr. McEwen. The limb having been

straightened, antiseptic dressings were used and the long splint applied.

Eight days later there had been no rise in temperature since the operation. The splint was removed, fresh dressings applied, and the limb encased in plaster-of-Paris.

On Oct. 19th, assisted by Dr. Lyon, Mr. Renton operated on the left limb, treating it the same as the right, with the addition that the fibula was broken and the tendon of the biceps divided. Dressings and splints were used as before, and on Oct. 29th plaster-of-Paris was applied.

Dec. 1st.—On removing the dressings the bones in both limbs were found perfectly firm, and the small wounds were healed.

28th.—Patient was able to walk, having gained two inches in height by the operation, and there being only four inches between the heels when the boy was lying comfortably on his back.

CASE 2. *Double Talipes Equino-varus.*—R. A——, aged six months, was admitted December 5th, 1878. On Dec. 7th, assisted by Dr. Beatson, Mr. Renton divided the tendo Achillis in each foot, and then, adopting the method of Dr. George Buchanan, he divided the whole of the structures in each sole subcutaneously, which immediately relieved all distorting causes. Two days after the operation Dr. Heron Watson's tin splints were applied posteriorly, and the case progressed favourably.

THE BOROUGH HOSPITAL, BIRKENHEAD.

FALL FROM A HEIGHT OF TWENTY FEET; UNCONSCIOUSNESS LASTING NINETEEN DAYS; RECOVERY.

(Under the care of Dr. SPRATLY.)

FOR the following notes we are indebted to Mr. F. G. Baker, M.R.C.S., senior house surgeon.

W. T——, aged nine, was admitted into hospital on April 17th. The only history that could be got was that he was picked up at the bottom of a tower about twenty feet high, in the dock, in an unconscious state.

On admission, about 12.20 P.M., the patient was found to be perfectly unconscious; a large extravasation of blood completely closed the right eye, and extended about half way up the right side of the forehead, and slight bleeding from both nostrils. The right pupil was slightly more contracted and less active than the left, but was otherwise normal; pulse and breathing were normal, as was the urine. There was no paralysis or discharge from the ear; no other injuries were found. Cold lotions were applied to the head, and a little milk was given by spoon. During the night he twice vomited blood. On the following day vomiting ceased. The patient then exhibited great irritability when the bruised eyelid was touched, turning away, and occasionally crying out, but he remained perfectly unconscious. Six grains of calomel were given, and shortly afterwards the bowels were opened.

On the 20th, a drachm of solution of perchloride of mercury and a grain and a half of iodide of potassium were given in water three times a day; milk and beef-tea were frequently administered in small quantities. From this time up to May 6th the patient remained quite unconscious, but gradually became more and more restless, constantly trying to get out of bed and stand up, till it was with great difficulty he could be got to remain quiet for many minutes together. He took the milk and beef-tea, as also the medicine which was given, during the whole time. A seton was also applied to the nape of the neck. Liniment of iodine was painted on behind both ears. Up to this time not only was he perfectly insensible to all sound, but he did not recognise anyone. His eyes were usually open, and he was constantly looking about him and moving in bed.

On May 7th he began to understand when spoken to loudly, and put out his tongue, &c., when told; but he failed to recognise his mother and sister, though he looked at them when spoken to, neither did he speak.

On the 8th he asked for various things, and appeared more intelligent; he recognised members of his family, and talked rationally for a few minutes to his mother. The seton was removed, and liniment of iodine was repeated.

From this time up to May the 17th he rapidly recovered, and on the 18th he appeared perfectly well, and went out every day afterwards. On the 23rd the pupils were quite normal, and with the exception of a slightly dazed look occasionally the patient appeared to be in his usual health.

The boy stated that at the time he met with the accident he was playing on some stairs in the tower, and fell over the balustrade, a distance of twenty feet, to the bottom.

HEALTH OF LARGE ENGLISH TOWNS

IN THE THIRTY-FIFTH WEEK OF 1879.

JUDGED by the Registrar-General's mortality statistics, the public health continues in an unusually satisfactory condition. In twenty of the largest English towns, containing nearly a third of the entire population of England and Wales, 5176 births and 2731 deaths were registered last week. The births were 6, and the deaths as many as 639, below the average weekly numbers during 1878. The deaths, however, showed an increase of 171 upon the low number returned in the previous week. The annual rate of mortality per 1000 persons living in these towns, which had been equal to 18·7 and 18·1 in the two preceding weeks, rose to 19·3 last week. During the past nine weeks of the past quarter ending the 30th ult., the death-rate in these towns averaged only 18·0 per 1000, against 24·5, 20·9, and 25·1 in the corresponding periods of the three years 1876–7–8. The lowest death-rates in these towns last week were 11·1 in Portsmouth, 12·5 in Wolverhampton, 13·3 in Brighton, 13·7 in Bradford, and 14·5 in Oldham. The rates in the other towns ranged upwards to 20·0 in London, 21·6 in Liverpool, 21·8 in Plymouth, and 22·9 both in Manchester and in Leeds. The deaths referred to the seven principal zymotic diseases in the twenty towns further rose last week to 654, of which 343 resulted from diarrhœa, and 109 from scarlet fever. The annual death-rate from these diseases averaged 4·6 per 1000 in the twenty towns, and ranged from 0·9 in Oldham to 5·7 in Liverpool. This zymotic rate was equal to 5·6 in London, while it did not average more than 3·7 in the nineteen provincial towns; this excess of the zymotic death-rate in London was due to the greater fatality of diarrhœa. Scarlet fever showed the greatest proportional fatality last week in Sunderland and Norwich; enteric fever in Nottingham and Portsmouth. Diphtheria caused 13 deaths in London, and 8 in the provincial towns; small-pox 7 in London, but not one in the nineteen other towns. The number of small-pox patients in the Metropolitan Asylum Hospitals declined during last week from 111 to 103; 20 new cases were admitted to these hospitals last week, against 35 and 26 in the two previous weeks.

The fatal cases of diarrhœa in the twenty towns, which had risen from 86 to 258 in the four preceding weeks, further rose to 343 last week; in the corresponding weeks of the three years 1876–7–8 the recorded fatal cases were, however, 614, 514, and 512 respectively. Diarrhœa was proportionally most fatal last week in Leicester, Liverpool, Leeds, and London. The annual death-rate from diarrhœa was equal to 3·0 per 1000 in London last week, whereas in the nineteen large provincial towns it did not average more than 1·9.

THE LATE MR. CLEMENT WILLIAMS.

To the Editor of THE LANCET.

SIR,—With reference to that part of the letter of Surgeon-Major Robertson in your issue of the 22nd ultimo, in which he states that I *asserted* that Mr. Williams was the first European who visited Bhamo in recent times, I wish, with your permission, to say that, if he will again look over my short letter, he will find that I made no *assertion*, but simply alluded to the *claims* of Mr. Williams, which are, as he says, advanced in the preface of that gentleman's book.

Without wishing to lessen the credit due to Captain Hannay, Drs. Griffith and Bayfield, it will, I think, be generally admitted that if Mr. Williams was not the first to visit Bhamo, he was, at all events, the first whose journey was followed by useful results, as may be collected from one fact amongst many—viz., that from 1837 (the year of Bayfield's and Griffith's journey), when Colonel Burney, our political representative, withdrew in disgust from Ava, he was followed by no permanent successor till the advent of Williams, about a quarter of a century later.

I remain, Sir, your obedient servant,

D. H. CULLIMORE, F.R.C.S.E., &c.,
Surgeon Indian Medical Department.

Tunbridge Wells, Sept. 1st, 1879.

THE LANCET.

LONDON: SATURDAY, SEPTEMBER 6, 1879.

UNDER ordinary circumstances the collective and formal opinion of a board of officials "on whom necessarily rests much of the responsibility for the due administration" of any legal system as to the need or expediency of reforming that system because it does not afford all the public security desired, would not be held of the highest effective value. Giving the executors of the law the utmost credit for impartiality, some colourable suspicion of self-complacency and easy content with their own work must generally detract from the value of their judgment. The opinion of the Commissioners in Lunacy on the working of the Lunacy Acts doubtless forms an exception to the rule. These gentlemen have no interest in maintaining the *status quo*, and if they were not thoroughly satisfied with it, they would certainly be found in the front rank of reformers, because every coherent scheme which has been suggested for the remodeling of the lunacy system has pointed in the direction of saving the Commissioners trouble and relieving them, in some small measure at least, of their great responsibility. It must therefore be assumed that the Board at Whitehall has a genuine feeling of contentment in reviewing the general state of the lunacy law, and sincere satisfaction in contemplating the progressive effect of its own labours. As to the last point, the historic conscience of the community justifies the view taken. It is not too much to say that whatever has been accomplished during the last half century to ameliorate the condition of the insane is due to the philanthropy of Lord SHAFTESBURY and the zeal and wisdom of those who have shared his enterprise on the Board, which he must be held to have instituted and maintained to the great benefit and honour of the country. We are the more anxious to make this acknowledgment specifically, because to the avowed satisfaction of the Board with the Lunacy Acts as they stand it is necessary to take some objection.

The Commissioners say: "For ourselves we are not disposed to advocate any radical changes in the existing law regarding the care and treatment of the insane, and in particular, so far as our present experience extends, we are quite satisfied that the present system of certification, both of private and pauper lunatics, and of the visitation of the asylums, hospitals, licensed and unlicensed houses, where they are received, affords in practice ample safeguard as well against the admission of persons of sound mind, as for the discharge of insane patients without undue detention." In short, the Board enjoys a very comfortable sense of confidence. All that can be done, or ought to be done is, in the opinion of the Commissioners, accomplished, and any great change in the law would be as undesirable as needless. There are no great and grave sources of risk to the subject, whether sane or insane. It is fully as easy as it ought to be to avoid being put away in an asylum, and every legitimate facility exists for obtaining discharge, if unjustly confined or unduly detained. Indeed, no such contingencies as those we have indicated are likely to occur. It is not in the least degree probable that the certificates of two totally inexperienced medical examiners will be wrong, or that a system which makes the reception or detention of a patient in a private asylum advantageous to the proprietor will, even occasionally, break down, and lead to abuses. The system of inspection adopted by the Commissioners is perfectly efficacious, and affords every reasonable guarantee for the safety of the inmates of asylums. And so on with the details of the lunacy system as a whole. Although the Commissioners are good enough to qualify their judgment by the admission that, "at the same time, we are far from thinking that no improvements could be made in the existing regulations. On the contrary, our daily experience of the working of the Acts has induced us to note many points where amendment would be useful": the changes which the Board is anxious or willing to make are, one and all, of the most unimportant or purely technical description. As regards the matters in which the public and the medical profession are interested, there is no concession or indication of willingness to yield a single point. The "specialty" in its most conservative form monopolises the view, to the entire exclusion of all wider and more distinctly professional or lay considerations. A touch of new paint here and there, and a little official tinkering, constitute the only amendments which the Commissioners desire, or would be prepared to tolerate. This being the state of the case, it is manifestly useless to discuss the matter further, at least from the Whitehall standpoint. It remains to be seen whether Parliament will be satisfied, when the matter is once fairly before it, to accept the official view as final. As we have said, the opinion of the Commissioners in Lunacy is entitled, and will certainly command, more than common respect, but we are not prepared to affirm that it is either reasonable or reassuring.

THE comparative effect on the circulation of intravenous injections of chloral, chloroform, and ether, has recently been studied by M. ARLOING, and an account of his researches has been communicated to the Académie des Sciences. A solution of chloral was employed of the strength of 1 in 5, and a mixture of chloroform and ether with twenty volumes of water. Large animals (horses or dogs) were employed for the experiments. The needful dose was given in divided portions, and injected slowly into a vein far from the heart. Cardiographic tracings with the apparatus of MM. CHAUVEAU and MAREY show that the three substances do not all produce the same effects. All cause an acceleration of the cardiac pulsations, but this is more considerable, and occurs more promptly, with chloroform than with the others. Chloral produces, first, a retardation. Both chloral and ether lower the pressure in the right ventricle, while chloroform increases it. Chloroform and ether augment the force of the heart's contractions, while chloral lessens it. Hence it seems legitimate to conclude that the pulmonary circulation is quickened by chloral and by ether, and is retarded by chloroform.

By means of a new hæmodromograph of M. CHAUVEAU the modifications in the pressure and in the rapidity of movement of the blood in the arteries have been recorded.

Injections of chloral cause, first, a slight increase in the intra-arterial pressure, as well as in the quickness of the cardiac systole, and a diminution in the frequency of the heart's action—i. e., an increase in the diastolic pause. Soon a fall in pressure and an increase in frequency result, and these continue as long as the anæsthesia. Chloroform often causes, at the outset, a slight dilatation of the vessels, soon replaced by a still stronger contraction, which makes itself evident in spite of the increase in the force of the cardiac systole. During the third period of chloroformisation, the vaso-constrictive action lessens, but does not give way to an opposite action—at least, unless the dose of chloroform is poisonous. Ether affects the arterial circulation in the same way as chloral; in extreme etherisation the accelerated pulsations present a marked dicrotism; and there is a retrograde movement at each pulsation, as if the column of blood oscillates in the large arteries.

The venous pressure during chloralisation is increased, and the tracing obtained may present arterial pulsation. With chloroform, the venous pressure varies, just as does the arterial pressure. In etherisation the two at first vary in the same manner, but later the venous pressure is increased, just as in the administration of chloral.

The conclusion from these facts is that the movement of blood in the capillaries lessens slightly at the commencement of chloralisation and of etherisation, and undergoes subsequently a considerable increase. The capillary flow first suffers a temporary augmentation by the influence of chloroform, and quickly lessens, to increase slowly at a later period, but without attaining always the normal rapidity.

Of the state of the cerebral circulation during the sleep of anæsthesia little is known. According to some observers there is at first hyperæmia, and, when sleep is well established, there is anæmia. According to others, even the profound sleep is accompanied by cerebral hyperæmia. The means of observation hitherto employed have been either insufficient or have been liable to error. The best method is to study the changes in the rate of movement of the blood in the artery which carries it to the brain, leaving the cranium intact, and to compare these changes with those in the pressure within the vessel and in the corresponding vein. Such an investigation shows (1) that all anæsthetics do not produce the same effect on the capillary system, and that it is impossible to reason from one anæsthetic to the others; (2) that sleep from chloroform is accompanied by anæmia, sleep by chloral and ether by hyperæmia of the brain. Hence the conclusion seems to be inevitable that the modifications in the cerebral circulation are not essential to the anæsthetic sleep, and therefore cannot be regarded as its cause. It is probable, from a comparison of the results of ophthalmoscopic examinations with these observations, that the sleep induced by chloroform is that which presents the greatest analogy with natural sleep.

NOT only the rights of government and legislation, but the progress of medical science itself, in the Province of Ontario, are said to be in jeopardy. Our readers will be as curious to know the causes of this painful state of matters, as they will be surprised when they learn the nature of the circumstances which are jeopardising the rights of our fellow-subjects in the province of Ontario and the progress of medical science. The one cause of such a distressing condition of things is that gentlemen who have satisfied the examining authorities of Great Britain and been registered in the Imperial Register have, under the Act of 1858, the right of practising in all Her Majesty's colonies and dependencies, subject to a power of the said colonies, under the Act of 1868, to enforce the registration of persons already registered under the imperial Act. We all know that great disasters often depend on very inadequate or unlikely causes. But we could not have imagined, without reading carefully the correspondence on this subject, that such grave evils would follow by allowing members of the medical or surgical corporations of England, Ireland, and Scotland to practise medicine amongst Her Majesty's lieges in Canada—or rather, to speak accurately, in the Province of Ontario. But it is even so. At least, so it is gravely set forth in a petition of the College of Physicians and Surgeons in Ontario; in a report of a Committee of the Honourable the Privy Council of Canada; and in a letter written by no less a person and no less liberal a statesman than his Excellency the Governor-General, the Marquis of LORNE. This said College of Physicians and Surgeons of Ontario was incorporated in the year 1865 by an Act of the late Province of Canada, and by it made the sole portal to practice in that province. It is now only fourteen years old; and yet it ventures to work upon the fears or prejudices of the Privy Council of Canada by setting forth that, unless men that are fit to practise in all parts of Britain pass "our Provincial Board," as the *Toronto Mail* puts it, "a most harmful effect on the progress of medical science in Ontario will be exercised, besides the compromise of colonial rights and liberties." It is really astonishing to see a Provincial Board so thoroughly despise the *testamurs* of the colleges of COOPER and BRODIE, of SYME and ALISON, of CRAMPTON and STOKES and MARSH; and it would be amusing were it not that the Privy Council of Canada has been so far misled as to endorse its complaint, and that the Marquis of LORNE has given the weight of his authority to it. We have never been blind to the faults of our British system of examinations, and we are hearty supporters of the present legislative attempts to make it more perfect. But it is simply absurd to represent that the progress of medical science in Ontario will be arrested if those registered at home are allowed to practise in Ontario, and it is a most lamentable exhibition of parochialism in a thriving colony like Canada to wish to subject medical men of the mother country to the indignity of an examination by "our Provincial Board." The demand is not made more reasonable by closely examining the grounds on which it is based. We have alluded to the first, that the progress of medical science will be hindered. The second is that physicians and surgeons are distinct professions in the United Kingdom, and that, being registered in one capacity, they may claim to practise in both. They can only claim in England to practise in that capacity in which they are registered. Ontario might reasonably make the same limitation. But at the very most this objection cannot be made to those who have double qualifications, who are the majority.

These reasons for complaint on the part of Ontario are so incredible that we must look for others. We would rather

believe that the real reason is a sort of resentment at the non-recognition on the part of the home authorities of colonial qualifications. Possibly, too, Canadian authorities are deluged by practitioners from other countries where examinations are more loose than here or in Canada. These are reasons for dissatisfaction, but they are not reasons for complaining of the rights of persons registered in the imperial Register. Canada lately complained that persons holding Canadian qualifications were not allowed to hold appointments in British ships, or even in Canadian ships trading to Britain. This is a fair ground of complaint and remonstrance, but it has been, we believe, already remedied. A yet larger recognition of colonial qualifications will be accorded in the coming Amending Act. But it is a poor way of helping generous legislation to devise such complaints and demands as those on which we have been commenting, and which we cannot help regarding as proceeding from the jealousy of schools rather than from the great body of the profession in Canada.

THE chairman of the Lower Thames Valley Sewerage Board has given to the metropolitan public and the public at large, under the title of "An Incredible Story," a letter which he has addressed to the Prime Minister, setting forth his woes and the woes of his colleagues on that Board. We can imagine the smile which must have possessed the Prime Minister's (or his reader's) face when, in the lately much perturbed atmosphere of Downing-street, he came upon the term "incredible," and found it placed in apposition to the famous phrase "Sanitas sanitatum omnia sanitas." Could it be possible that the writer was so unsophisticated as to believe his story "incredible" when it had not even the merit of being singular, or an electioneering cry to be an unconditional principle of State policy? True, the story had a certain exceptional merit about it from its furnishing a completer illustration than the cases of Birmingham, Leeds, and numerous other places, of the hand-to-mouth principles on which sanitary legislation, as a rule, has been conducted; but representative government, whether local or central, has to subordinate principles to other considerations, and, philosophically considered, there may be much to be said in favour of the state of things which the story describes. It will give occasion, for instance, for a pleasing display of that marvellous self-rectification of matters which is the inherent peculiarity of English administration, local or general, and which is so often the substitute for political or administrative genius. Whether such considerations will convey any consolation to the suffering members of the Lower Thames Valley Sewerage Board and their chairman we shall not pretend to say, but at any rate their threatened martyrdom serves to crown a story which well deserved the telling, and which has been well told by Mr. T. J. NELSON. The story relates to the towns on the Thames lying between Walton and the metropolis. In the beginning of the sanitary epoch these towns, and all others on the river banks, assumed the privilege of pouring their sewage into the stream. But even at the date when systems of sewerage came into operation, such a disposition of the sewage was protested against by the General Board of Health as wicked and wasteful, and local authorities were urged to dispose of their sewage by irrigation or otherwise, so as to avoid polluting the rivers. Neither Parliament nor the local authorities gave heed to the far-seeing advice of the Board; the latter adopted the readiest mode of escape from a present difficulty without regard to the future; and now Nemesis has seized upon them. When the state of pollution of the Thames, with reference especially to the water-supply of the metropolis, became a serious public question, powers were given to the Thames Conservancy to restrain that pollution. These powers, at first exercised sluggishly, were afterwards, under the pressure of public opinion, more energetically put in force, and with the result, as declared in the last annual report of the Conservancy, that almost all the sewage above the in-takes of the water companies has been diverted from the stream, and that in a short time *all* will have been diverted. The case stands differently below the in-takes and outside the western limit of the metropolis. Here remarkable and as yet insuperable difficulties have been experienced in obeying the behests of the law and freeing the stream *from* sewage, and it is these difficulties which form the stuff of the "incredible story." Kingston, under pressure from the Thames Conservancy and the Court of Chancery, first made the attempt to overcome them, but, foiled by her own ratepayers and then by the Government, she struggled helplessly at great cost, and her sewage still flows into the Thames. Richmond then tried hard to obey the law, but by the combined action of the Crown, her own ratepayers, and the Government, she also failed as Kingston had failed, and at much cost. Other towns had the same fate—Kew, Barnes, Mortlake, Esher, Hoston, and Isleworth; schemes for relieving the Thames from their sewage were proposed, inquired into, and uniformly rejected, at great cost to the ratepayers. Then a vigorous attempt for conjoint action was made, and a scheme devised for taking the whole sewage of the district into the river far below London; but the Local Government Board held the scheme to be "too heroic," and this failed also. Finally, a plan was devised to which that Board did assent, but for the execution of which certain parliamentary powers were needed. But here Parliament itself interfered, and, despite the approval of the responsible Government department, refused to give the necessary powers for executing its own behests. Then, to complete this sanitary *charivari*, the members of the conjoint Board which had been constituted to carry out the requirements of the law for the benefit of the districts represented upon it, and of which a scheme had been approved by the Government, were haled by some of their own constituents into a court of law and, subject to appeal, fined the costs of the expenditure they had incurred in the execution of their public duty—£7000; for carrying out, in fact, their legitimate functions! Meanwhile the pollution of the Lower Thames continues, and presently it will be possible to enforce heavy penalties, amounting to many thousands of pounds, against the local authorities for not performing a duty imposed upon them by the Legislature, but which neither their own constituents, nor the Crown, nor the Government, nor Parliament will permit them to do.

THE examination for commissions in H.M. Indian Medical Service commenced on Monday last, at Burlington House, when forty candidates presented themselves to compete for sixteen appointments.

Annotations.

"Ne quid nimis."

THE CHOLERA IN INDIA.

OUR correspondent in India writes that cholera is still very prevalent in the Punjab and in several stations in the Bengal Presidency. During the last week in July no less than 356 deaths amongst the natives were reported in the city of Rawul Pindee. In the Lahore district the disease has been considerably on the increase, and has claimed among its victims another medical officer, Surgeon-Major A. Neil, of the Bengal Medical Service, Professor of Anatomy and Materia Medica in the Lahore Medical College. He was in his usual health on Monday the 21st, was seized at noon the same day, and expired early the following morning. Dr. Neil has long been known in the Punjab as an officer of great ability, hard working, painstaking, and conscientious; his loss in Lahore and neighbourhood will be universally felt. At Simla, up to the 31st July, there were fifty cases, with thirty-five deaths; of these two only were Europeans. At Bankipore, near Patna, three European students in the Loretto Convent School having succumbed to cholera, the school has been temporarily closed. In the Bankipore gaol cholera has, during the latter half of July, been very prevalent, seventeen deaths from it being reported up to the 28th. In Afghanistan numerous cases are still occurring, necessitating the European troops remaining under canvas. In Candahar there has been a large increase in the attacks, though rather a less ratio of deaths; while in the Khurum valley it is subsiding, and with the advent of the cold season, now rapidly approaching, it is hoped cholera will disappear. Lieut. Murray, 13th Bengal Lancers, died at Trete, on his way to Murree, having probably contracted the disease in Afghanistan. The frontier station of Lundi Kotal has turned out to be very unhealthy. From its site, 3400 feet above sea level, it was thought likely to be more suited as a cantonment for European troops than Dakka, Ali Musjid, or, in fact, than any known position between Jumrood and our furthest Afghan boundary. The troops are suffering greatly from remittent fever, dysentery, and cholera. In estimating the sickness, however, it must not be forgotten that the men had but recently returned from Jellalabad—a long march in the hot months,—were already debilitated by the exposure and privations of a campaign in a trying climate, and that the accommodation, shelter, and supplies, in a new and unknown station, have been necessarily somewhat defective. The distance from Peshawur, the scarcity of transport, the absence of a good road up the hill, have all tended to create difficulties and to diminish the supply of those comforts, in the shape of fruit, vegetables, milk, ice, &c., so necessary to preserve health in India in the hot season. In view of the sickness the medical authorities have very wisely recommended the European force to be diminished, and it will be a question whether Lundi Kotal will not eventually be abandoned as a cantonment, at all events, for British troops.

ANÆMIA.

M. HAYEM continues his instructive investigations into the minute character of the blood changes in anæmia, and has contributed to a recent meeting of the Société de Biologie a further paper upon the mode of regeneration of the blood. In a note communicated three years ago to the Académie des Sciences, he showed that iron introduced into the organism acts by restoring the red corpuscles to their physiological condition. His observations since completely confirm those conclusions. M. Reynauld has suggested that it would be interesting to ascertain whether a preparation of iron, incapable of being modified and of uniting with the organism, would have the same results, and researches undertaken by him and M. Hayem have shown that the ferrocyanide of potassium, administered in doses relatively large, passes through the organism without taking any part in the regeneration of the blood, and without causing any appreciable alteration in the anatomical condition of the red blood-corpuscles.

A further important fact to ascertain was, whether chlorotics could not obtain the iron needful for their cure from their food, and whether the iron given did not act merely by stimulating the appetite and improving the digestive powers. The difficulty in the experiment consisted in administering a restorative diet to patients who commonly experience a profound disgust for food, and who suffer from serious digestive derangements, such as vomiting and gastralgia. In order to overcome this difficulty, M. Hayem determined to treat chlorotics with inhalations of oxygen, which Demarquay and other observers have found to be capable of stimulating the appetite in a remarkable manner. It was important, in the first place, to see whether the supply of an increased quantity of oxygen to the corpuscles would produce effects similar to those which result from the administration of iron. M. Hayem had observed that in chlorotics who have dyspeptic troubles, whose aliment consists entirely of vegetables (salads, fruits, &c.), the general nutrition suffers, and the daily excretion of urea falls to a very low figure, in many cases not exceeding fifteen grammes per diem, and in some severe cases it may fall as low as twelve or even ten grammes. When, in these conditions, oxygen is inhaled (by the apparatus of Limousin, for instance), in the quantity of ten litres daily, after two or three inhalations there is a marked improvement, and soon the digestive troubles disappear. Vomiting ceases, the appetite improves, and in a few days the patient takes a substantial diet. After two or three weeks of this treatment, some, who previously could take but little food, become almost insatiable. They digest well bread, meat, and other nutritious foods. The excretion of urea increases in proportion to the amount of food taken, often reaching thirty-five or forty grammes per diem. The general condition improves, the tint of the patient's skin becomes a trifle more rosy, and the weight of the body increases; nevertheless the examination of the blood shows that, in spite of this nutritive activity, the blood-corpuscles are not changed. The number of the globules is almost always increased, but their individual alterations persist, and even increase, in proportion to the increase in their number. Thus the patients continue to form morbid corpuscles. At the end of two months, or even two months and a half, the morbid state of the blood contrasts strikingly with the improvement in the digestive function. As soon as the inhalations of oxygen are discontinued the patients fall into their previous state in the course of a few days—they have derived from this long treatment merely a transient superficial benefit. On the other hand, if they are then treated with iron, a distinct improvement in the blood state is to be detected in the course of a few days, and the improvement increases with great rapidity in consequence of the digestive system having been previously strengthened by the inhalations of oxygen, and so is able to tolerate the more readily the preparations of iron. The blood-corpuscles soon become normal, both in number and in quality.

These researches show that iron does not do good in anæmia by its influence in improving general nutrition, but that it supplies to the blood, directly or by the intervention of the hæmato-poietic organs, elements necessary for its regeneration. It appears, also, that inhalations of oxygen are useful in chlorosis when this is accompanied by dyspeptic troubles, and they may be considered as a useful adjuvant to iron.

THE AMENDMENT OF THE MEDICAL ACT.

THIS "burning question" is not to be [allowed to be forgotten even in the holiday weeks which follow the rising of Parliament. Mr. H. Nelson Hardy has published a letter on the amendment of the Medical Act, which he has addressed to the Right Hon. W. E. Forster, M.P., as the chairman of the Select Committee on Medical Bills, which sets several aspects of the question in a strong light. Mr. Hardy expresses deep disappointment at the result of the Committee's investigations so far. We cannot help thinking that he is a little premature in this, and that he underrates the significance of the evidence that has already been tendered. It is scarcely fair to express unfavourable opinions in reference to an inquiry which is only well begun, and into which many other witnesses are to be brought, including, we hope, Mr. Hardy himself, whose experience as chairman of the Medical Alliance Association, and whose familiarity with the whole subject of medical reform, entitle him to a careful hearing. He complains that eight of eleven witnesses examined up to this point are members of the Council, and objects to the mode and character of their evidence. Mr. Hardy argues powerfully, as we have long tried to do, that it would be a most inconsistent and unjust thing for Parliament, while it is constantly adding to the costliness of medical education and the severity of medical examinations, to relax the laws which prohibit illegal practice. A very valuable part of Mr. Hardy's letter is that in which he shows the lucrativeness of the Conjoint Board arrangement in Scotland. His explanation of the strong opposition of Scotch corporations to a Bill that will compel Conjoint Boards in each division of the kingdom is that it would withdraw many students who are now naturally attracted by an examination which gives them a double qualification. He shows that Dr. Andrew Wood understated seriously, though certainly unintentionally, the number of fellowships granted, for a money consideration, and without examination, by the Edinburgh College of Surgeons. The average number has been twenty-two for ten years past. In seventeen years £7957 have come to the College from this most unsatisfactory source. The Government Bill would practically stop this source of income by refusing registration of fellowships not gained by passing an examination higher in standard than that of the Conjoint Boards to be established under the Bill. Dr. Wood drew from this bearing of the Bill an objection to it. Mr. Hardy naturally says that such objections say more for the College's love of money than for its concern for the advancement of the learning and the reputation of the profession. And it would be difficult to controvert his reasoning.

ETIOLOGY OF YELLOW FEVER.

IN a recent discussion on yellow fever by the medical section of the Academy of Sciences of Louisville, Kentucky, reported in the *Medical Herald*, Dr. Wm. Bailey, the Professor of the Principles and Practice of Medicine and of Clinical Medicine in the Hospital College of Medicine of that city, gave an admirable summary of his views of the etiology of the disease, as derived mainly from his own observation of it in 1878. These views are of special interest as indicating how medical opinion on this subject, on both sides of the Atlantic, is shaping itself into very defined and accordant lines of thought. Louisville came within the area of the great prevalence of yellow fever in the United States last year. Over one hundred cases occurred in the city, of which eighty were treated in the yellow fever hospital. This outbreak occurred under circumstances peculiarly favourable for observation. "I do not believe," Professor Bailey says, "that any place in the country had facilities for the quiet, close analytical study of the disease equal to those we had in Louisville. We were away from the excitement and flurry of an epidemic, with a profession having in the main no fear from personal contact with the disease, and hence cool, deliberate observations were made at the bedside and in the dead-room." Of the cases occurring in the city Professor Bailey expresses his opinion, in very positive terms, that there was no causal relation between them, and the experience of the hospital confirmed observations made outside to the effect that there was no question of a personal contagion communicated from the sick to the healthy. The fever, so far as the closest inquiry could elicit, had not been introduced by persons sick from it coming from other infected districts; and no case of communication of the disease from the sick in the city to the healthy could be established, or, indeed, it is to be said, reasonably suggested. On the other hand, the transmission of the cause of the disease from place to place by shipping at least seemed to be indisputable, but the transmission rested with the vessel, not with the persons carried by it. It was the transmission, in fact, as Professor Bailey worded it, "of a section of the climate of a yellow fever district;" the ships brought "something from the climate, and not from the sick." And for this "something" to be effective it was requisite that the locality into which it was imported should have, for the time being, a temperature equal or approximate to that of a true yellow fever district. From this point of view, quarantine, as ordinarily practised—that is, a quarantine including persons—was, according to Professor Bailey, an elaborate folly.

SCHOOL FOOD.

THE complaints that have recently appeared in *The Times* regarding the indifferent nature of the food supplied at many of our chief schools open a grievance of ancient date. As a rule, however, the dietary at our large schools has greatly improved during the last twenty years, and the chief faults to be found with most of them lie, not in the quantity and quality of the food supplied, but in the bad arrangement of the meal hours, and faulty management of the housekeeping department. In many cases boys assemble in the school-room at 6.30 or 7 A.M., and wait there fasting till 8.30. As the last meal, and that only a light supper, has been taken some thirteen hours previously, the stomach is exhausted, and unable to digest a plain and substantial breakfast, and the appetite consequently needs provoking with lighter and more relishing food than the school table affords; hence the lads turn with disrelish from the simple fare before them. This condition is no fit preparation for the dinner-time, and the digestion of the solid joint and pudding. We believe if the practice were generally instituted of giving the boys hot milk or coffee, with a biscuit or crust, when they first rise in the morning, before going into school, their stomachs would be in a better condition to digest the more substantial breakfast later on. But even when this plan is adopted, and no complaint can be made against the liberality of the supply, the food is rendered unpalatable by bad cooking and slovenly service. Meat dried to a chip, moistened with thin lukewarm greasy gravy, served on a cold plate, with waxy potatoes, and greens sodden with water, may be found on the tables of many first-class schools whose masters boast that they contract for provisions of the best quality, and that the supply is practically unlimited. Such shortcomings must invariably happen if the master is ignorant of domestic matters or leaves this department to an inexperienced wife or perhaps still more inexperienced sister. Where this is the case nothing can mend matters unless he is fortunate at length in securing the services of an honest and a competent housekeeper. Under any circumstances, however, the master ought not to be above a knowledge of domestic detail, certainly in regard to such an important matter as

food. He might, at least, see for himself that the joints sent to table were well cooked and full of gravy, and had not been pricked by the cook to augment her perquisite of dripping, and that the potatoes, bread, butter, tea, sugar, &c., were really of the quality contracted for. If masters knew more of these petty details, they would save enormously in their house expenses, and their boys would be contented and thriving. With plenty of good well-cooked beef and mutton, sound bread, sweet butter, and honest cheese allowed him, the school-boy who craves for something more luxurious is either too delicate for school life or stands in urgent need of a dose of physic.

THE DUMB ANIMALS AS PATIENTS.

WE have often been struck with astonishment while witnessing the patient submission of animals, especially dogs and horses, to surgical operations, and to the surgical dressings necessitated by them. A case in point has been brought under our notice. A fine pointer bitch had a large hard fibrous tumour of the breast, with deep and far-reaching roots. The operation for its removal was very skilfully and effectually executed by Mr. George Fleming, veterinary surgeon of the 2nd Life Guards. During the operation the animal displayed an amount of patience that would have been creditable in a human being. Even during the most painful part of the proceeding, that of inserting sutures, she never flinched. The same resignation was displayed when the time for dressing the wound came round. The patient received the surgeon with an air of preparation, and even put herself into position for being dressed. In the case of a similar operation on another dog some years ago, strong resistance was offered to the attempt to give chloroform; but the animal submitted to the surgical procedure as we have described above. Such facts admit of a partial explanation in the mental theory of pain, according to which suffering that is not anticipated and mentally apprehended is not pain in the acuter sense of the word. But we should be sorry to see this explanation carried so far as to deprive our dumb fellow-creatures of all credit for the submission they show under surgical treatment. We would go further, and say that they are vastly more sensible than many human beings in their estimate of the medical profession, and have instinct enough to see that even when pain is inflicted on them it is for a good and kind purpose.

THE STOCKWELL HOSPITALS.

THE reports of the Committee of the Stockwell Fever and Small-pox Hospitals for the year 1878, and of their medical superintendents, Dr. McKellar and Dr. Bernard, present several interesting subjects for consideration. First, it would seem probable, from the figures given by the committee, that the danger of keeping cases of infectious diseases in private houses was more fully recognised by the metropolitan population in the epidemic of small-pox in 1877–78 than in that of 1871–72. At least this is a conclusion that the committee thinks is suggested by the following figures:—During the epidemic of 1871–72 the deaths from small-pox in the hospitals of the Metropolitan Asylum Board numbered 3020; in private houses, 6023. But during the epidemic of 1877 the proportion of deaths in the hospitals and in private houses was reversed, 2028 having died in the former, and 1932 in the latter. With reference to the danger incurred by friends in visiting patients in small-pox hospitals, it appears that of 768 visits made in 1878 in only one instance does there seem to have been a likelihood of the disease having been contracted. Dr. McKellar directs attention to the imprudence of friends accompanying patients in the ambulance at the time of their being sent to the hospital. He suggests the advisability of the parish authorities sending a nurse with the patient. Lambeth, it appears, is the only parish, south of the Thames at least, which follows this good plan. The same gentleman has the following observation on a practice which deserves reprehension:—"Thirty-seven cases (of small-pox) walked, or were carried in the case of young children, through the streets to the hospital. The great majority stated they had been advised to walk by the medical practitioner whom they had consulted. This is a fertile source of infection, and the practice should be discontinued."

RABIES AND HYDROPHOBIA.

THE current number of the *Veterinary Journal* contains a suggestive article on Rabies and Hydrophobia, from the pen of the editor, Mr. G. Fleming. It is founded on recent cases of the two maladies observed in Ireland and in Lancashire. The circumstances under which these cases occurred were briefly as follows:—A favourite fox terrier, belonging to a young lady, the daughter of a physician in Dublin, after a period of changed disposition and vagrancy (pathognomonic of rabies, but of which the significance was unhappily not recognised), bit its mistress, and the bite was followed by fatal hydrophobia. There can be no doubt that during the time of the animal's vagrancy it quarrelled with other of its species, and doubtless bit them, and possibly may have assaulted some human beings. Hence Mr. Fleming cautions the Dublin authorities to be on their guard against further development of rabies. In the Lancashire case the early symptoms of rabies in a favourite mastiff bitch were also unrecognised, and the animal in its vagrant mood bit several other animals and several human beings. Of the latter three have had hydrophobia, and died. It is remarkable that in the two cases of rabies here noted no suspicion of the nature of the disease seems to have crossed the minds of the owners of the animals, although the symptoms appear to have been peculiarly characteristic. Mr. Fleming again urges the desirability of printing upon the back of the dog-licence paper information as to rabies. This course has been taken by the Paris authorities, and there can be no good reason why it should not be followed here. To adopt the plan would at least remove all excuse for ignorance on this painful subject, and it is obvious that the efficient control of rabies must be largely dependent upon the cultivation of an intelligent appreciation of the early symptoms of the disease.

EFFECTS OF ELECTRICAL STIMULATION OF THE BRAIN.

M. BROWN-SÉQUARD communicated to the Société de Biologie, at a recent meeting, the results of his experiments on the effect of stimulating by electricity the organs at the base of the brain. For that purpose he tied the carotids, removed the lower jaw, the tongue, and false palate, and thus exposed the lower surface of the medulla, the pons, and the cerebral peduncles. In the majority of his experiments he found that stimulation of the pyramids, of the pons, or of the peduncles, caused only movements on the side of the body corresponding to that stimulation. Only once in three times did the movements occur on the side opposite to that to which the galvanism was applied, while twice out of three times the movements occurred on the same side. Further, a persistent contracture was caused by the galvanisation of the anterior pyramid. In pathology, Fabre has cited a case of persistent contracture on the side opposite to the lesion, with paralysis on the same side; and in an observation of Bouchard there was direct contracture and crossed paralysis.

Further, it was found that the spinal cord is capable of

determining changes in the excitability of the base of the brain. This was observed four times—three times in a rabbit, once in a guinea-pig. The right half of the spinal cord having been divided, it was found that the motor excitability of the base of the brain was lost on the left side, even when strong currents were employed. The excitability of the motor centres was diminished on the left side, while on the right it was apparently augmented. Thus, while the motor excitability was lessened on the left side, on the right sensibility and reflex action were increased, with marked diminution, and even loss, of sensibility on the left side.

Again: After section of the right sciatic nerve, a loss of excitability of the base of the brain was found on the opposite side—the left; and even the motor centres acted less upon this side than on the right. Thus section of the cord and of the sciatic nerve both cause a similar suspensory influence on the nerve-cells of the base of the brain. Analogous facts have been observed in pathology, as M. Brown-Séquard has shown in his memoir in the *Archives de Physiologie:* convulsions may occur on the side of the lesion in cases of damage to the lenticulate or caudate nuclei or to the optic thalamus. As examples of unilateral irritation of the base, he has mentioned lesion of the pons, of the peduncles, and of the anterior pyramids, which caused direct symptoms; and he has cited choreas, catalepsies, and tremors, which occurred on the side opposite to the lesion.

Another effect is the paralysis of the abdominal muscles, which is rare in man, although common in animals after lesions of the peduncles or the pons Varolii.

"BACK PREMISES" AT THE SEASIDE.

WHENEVER, if ever, it happens that the owners of property which is chiefly used by "visitors" at a particular season come to recognise the economic prudence of placing it in a perfectly sanitary condition, attention will perhaps be directed to "back premises" at the seaside. The general state of these hidden localities is, as a rule, most deplorable. They are blocked with lumber, employed as receptacles for refuse, or left in a condition discreditable and dangerous to health. Nothing but the most perverse neglect of opportunities can explain this fact. In nine out of ten instances sanitary prudence would suggest building out special offices, and draining away at the back, so as to leave the residence free from those emanations of sewer-gas which make most "lodging-houses" disagreeable, and, to a sensitive person, barely habitable. It is also very commonly the fact that in the rear of a stuffy house there is space for the laying out and cultivation of a small garden, which would greatly enhance the value of the property. Considering that most of the well-to-do residents in cities pass some one or two months or more of the year in "seaside" lodgings, or hotels, it is not unreasonable to ask that something may be done to improve the conditions of life to which they are condemned.

THE LATE SIR ROWLAND HILL.

THE public is indebted to the late Sir Rowland Hill for the penny postal system, and all classes of the community must desire to do homage to his memory. He was a man of remarkable ingenuity. His administrative talent was of a very high order, and to the perseverance and tact shown in his work we owe the benefits of that easy and punctual correspondence which is daily enjoyed by all classes of her Majesty's subjects. Passing to his rest at a ripe old age, the late Sir Rowland Hill, the father of the penny postal system, has deserved well of his own and succeeding generations, and his life and work command our respectful regard.

BRAIN GROWTH.

DR. CRICHTON BROWNE'S paper, "The Influence of Domestication on Brain Growth," read in the Anatomy and Physiology section of the British Association, is an important contribution to the science and literature of development. By a series of observations made with extreme care, the author shows that the duck has suffered in brain development by being domesticated. While other animals have been domesticated for special qualities inherent in their nature as animals, the duck represents a class of creatures in which the instincts and uses of the organism have been suspended by the change in condition. The duck has been, so to say, taken wholly out of its place in nature, and reduced to the level of *food* by a process and under circumstances which supercede all its natural propensities. "Food has been copiously supplied, and of a kind richer and more nutritious than could have been accessible in a feral state. Shelter has been provided, and the bird has been compelled to live in a temperature higher than that to which it was accustomed in a state of nature. Competition has been made unnecessary, and protection has been afforded against a host of enemies. Flight has been prevented, and locomotion circumscribed as much as possible. In short, the life of the duck has been rendered tranquil, luxurious, and indolent. Its whole duty has been to live and grow fat, and to multiply and replenish the pond. Few calls have been made on its intelligence. It has not had its senses and instincts whetted by the necessity to range afar in quest of food, to eschew ever-recurring dangers. It has not had its energies evoked by a free existence. It has been dragged down by domestication to a lower psychical level." The author might have added that it has been wholly demoralised and debased to the lowest depths of filth as a feeder. The brain has lapsed in process of time as a result of the absence of stimuli. Dr. Crichton Browne, starting from this striking illustration of the effects of the "surroundings" on development, and noting the cumulative force of heredity, applies some of the obvious inferences from the facts he has detailed to the development or retrogression of the brain in different races or groups and families of men. "To fare sumptuously every day, to bask in luxury and idleness, is to court decay of the noblest of the tissues, for moth and rust doth corrupt even the greatest of man's treasures—his intellect—when it is laid by in uselessness and lavender, and thieves will surely break through and steal away his brains unless they are zealously guarded and diligently exercised." This is a practical point of the highest value and moment, and one that cannot be too strongly or constantly expounded. The brain grows by use individually and racially. If it is not habitually employed, in a class or family, it will sink into subordinate importance. The moral of the consideration expressed is self-evident.

WHERE STREET FRUIT AND FISH COME FROM.

IT is not an appetising or healthful consideration that that most of the fruit and fish which is hawked about for sale in the streets of populous places of holiday resort, comes from dens as filthy and noxious as any which are to be found in London. At home, materfamilias would not think of buying food so polluted; but when "roughing it" at the seaside all precautions are thrown to the winds, and grievous risks incurred without either thought or ordinary carefulness. Let anyone who thinks this caution is needless, or that the danger suggested is exaggerated, take the trouble to visit the courts and back streets of any fashionable watering-place, and ascertain where the "fresh shrimps" and prawns are boiled, and whence the supply of fruit and vegetables daintily displayed on the street-hawkers' barrows has been recently extracted!

ENGLISH PUBLIC HEALTH DURING AUGUST.

THE rate of mortality in the largest English towns, which was unprecedentedly low during July, scarcely showed any increase during August. The annual rate of mortality in the twenty large English towns dealt with in the Registrar-General's Weekly Return, which averaged only 17·7 per 1000 during July, rose to 18·4 during August. Basing the calculation upon the relative proportion between the death-rate during the third quarter of the year in these large towns, and in the whole of England and Wales, it may be estimated that the general English death-rate did not exceed 15·2 and 15·8 per 1000 respectively during July and August. The rate of mortality in England and Wales during the nine weeks ending 30th ultimo may in the same way be estimated at 15·5 per 1000. Unless the death-rate during September should show a marked increase, English mortality statistics will be more favourable during the current summer quarter than in any previous corresponding period since the commencement of civil registration in 1837. During the summer quarters of the forty-one years 1838–78, the death-rate in England and Wales ranged from 17·2 and 17·8 in 1860 and 1845, to 24·2 and 30·6 in 1854 and 1849; cholera was epidemic in each of the two last-mentioned years. Thus the lowest death-rate in the summer quarters of the forty-one years was 17·2 per 1000 in 1860, and unless the death-rate in the present month be exceptionally high, the rate of mortality in the summer quarter of 1879 will be still lower than in the wet summer of 1860, which has been till now the lowest summer rate on record. One of the main causes of the low English death-rates during the present summer has been the comparative immunity from infantile diarrhœa enjoyed by the urban population. It may be noted with reference to this immunity that during the nine weeks ending 30th ultimo, only 1242 fatal cases of diarrhœa were recorded in the twenty large English towns, against 6440 in the corresponding period of last year.

AMERICAN MORTALITY STATISTICS.

EVIDENCE is not wanting that in America the necessity for trustworthy mortality statistics is beginning to be more generally appreciated. The fact that accurate mortality records afford the only effective lever to sanitary reform is now more fully recognised, both by the United States Government and by the local authorities of the several States. Increasing numbers of the States now possess boards of health, one of the first efforts of which is in the direction of an improved system of registration of vital statistics. A National Board of Health has also been created in Washington, which issues a weekly bulletin containing periodical mortality returns relating to more than seven millions of the urban population of the United States. The sixth number of this weekly bulletin, bearing date the 9th ult., has just reached us. It is therein noted that the publication of this bulletin is the first attempt in America to collate and publish in tabular form such mortality statistics under Government direction. It is honestly admitted that it will not be difficult to appreciate the defects of such statistical returns in a country "where neither the municipal authorities nor the people attach any importance to the facts and conclusions established, and such is the position of vital registration in the United States." It is added that the real value of the data published in the bulletin will, for a time at least, largely consist in the "encouragement they must give to those now engaged in organising and managing vital registration in the cities which contribute reports," and in stimulating the early establishment of a registration system in other populous towns in which no such system now exists. All students of international vital statistics must have long regretted the manifestly imperfect and misleading mortality records of most American cities, and will watch with interest the present effort to render them more trustworthy, both for comparative purposes and as a basis for promoting sanitary reform.

SANITARY NOTES.

THE *Surrey Advertiser* of the 23rd ult. reports that Mr. S. J. Smith, C.E., one of the inspectors of the engineering department of the Local Government Board, held an official inquiry at York Town, under Section 299 of the Public Health Act, 1875, to discover why the local sanitary authorities of Frimley and York Town had failed to comply with an order of the Board, issued five years ago under the auspices of Mr. Harrison, C.E., to provide proper sewerage arrangements for the districts in question. It appears that even in 1874 the ecclesiastical district of York Town contained more than 400 acres, with 2000 inhabitants, and that the drainage was then, as now, carried on by cesspools, open ditches, and analogous arrangements, some of these cesspools being in very close proximity to the wells. The sanitary state of the districts was gradually becoming worse, and an epidemic may, of course, under the circumstances, be looked for at any time. The population now numbers more than 3000 persons, with an area of 6500 acres, and the parish is entirely isolated. The deaths have lately been at the rate of 20 per 1000.

NETLEY HOSPITAL.

IN a letter to *The Times* from "An Officer's Wife," attention is called to the circumstance that Netley Hospital never receives any presents of game, fruit, flowers, or newspapers, which are at this season so frequently sent to the civil hospitals throughout the country for the use of the sick. We are sure it is only necessary to state the fact to secure for the poor invalids from foreign stations a share of these kindly gifts. Several thousand invalids pass through this hospital annually on their return from foreign service, and having no occupation, and little means of amusement, they must naturally find time hang heavily on their hands. It is true that they have a reading room provided by the War Office, with games, such as chess, backgammon, and draughts, and with books and a limited number of papers for those who are sufficiently convalescent to quit their wards; but an additional supply of newspapers, especially illustrated ones, would, no doubt, be an acceptable boon, while an occasional treat of game and fruit would be an agreeable variety upon the monotony of the hospital diet. We recommend the case to the consideration of those who have it in their power to confer these benefits.

TOXIC EFFECTS OF TEA.

LORD WILLIAM BERESFORD, in addition to his distinction as a gallant and chivalrous soldier, will be distinguished in history as the owner of a horse which was poisoned by tea. The *Veterinary Journal* reports the "case," and characterises it as "unparalleled in the annals of veterinary or even human toxicology." A staff cook having left some pounds of tea in a sack, a Kaffir groom filled it with corn, and serving out the contents to a troop of horses, gave Lord William Beresford's charger the bulk of the tea, which was eaten greedily, and produced the most startling results. The animal plunged and kicked, and ran backwards, at intervals galloping madly around, finally falling into a donga, where it lay dashing its head on the rocks, and was dispatched by an assegai thrust through the heart. The post-mortem appearances indicated extreme cerebral congestion. The occurrence as an accident is probably unique. The phenomena exhibited were, however, characteristic of the action of caffeine—namely, cerebral excitement, with partial

loss of sensibility, convulsions, and death. The sensory nerves are paralysed without any corresponding paralysis of the motor nerves, so that the muscular action, which proceeds from ideation and volition, remains unaffected. The reversal of limb movements, which produce running backwards in quadrupeds, is a common symptom of brain disturbance, frequently witnessed, for example, in the case of puppies with unclosed crania. The case is one of great interest, and may help to throw light on the action of tea, which has not been sufficiently studied, and must be still classed as unexplained.

DECREASE OF ADULTERATION OF FOOD AND DRUGS.

THE recently published Report of the Local Government Board gives interesting information on the decrease of adulteration of food and drugs in the kingdom. "The first comprehensive inquiry into the prevalence of adulteration in England," the Report states, "was that of THE LANCET Commission in 1854–56, when more than half the samples analysed were reported against." The returns which have now to be made regarding the operation of the Sale of Food and Drugs Act, 1875, admit of an accurate judgment being formed as to the results of the measures taken for the repression of adulteration since THE LANCET inquiry. The first return under the Act in question was made in 1877, when it was shown that of the samples subjected to analysis the proportion of adulterated had fallen to 19·2 per cent. The return for the following year, 1878, which is included in the recent Report of the Local Government Board, shows a still further reduction in the proportion of adulterated samples, this having been for the year in question 17·2 per cent. Moreover, if spirits be excluded from the calculation, the percentage of adulteration fell from 15·5 in 1877 to 13·7 in 1878. The actual number of samples of food, spirits, and drugs submitted to examination in 1878 was 16,191, and of the several varieties the percentage of adulteration ranged from as high a proportion as 47·0 to 1·8. The three articles found to be most adulterated were gin (47·0), spirits other than gin (46·0), and drugs (25·4). Next in order of adulteration came milk (21·6), mustard (19·5), coffee (18·5), and butter (12·6). Other articles exhibit low proportional figures as compared with these: thus bread (7·1), pickles, including tinned vegetables (7·0), beer and confectionery (each 5·0), sugar (4·3), wine (2·6), jam (1·9), flour (1·8), and other articles (5·5). Notwithstanding the vast general improvement in the purity of the articles referred to since THE LANCET inquiry, it cannot be held to be satisfactory that so large a proportion of spirits, drugs, milk, and butter are still sold in an adulterated form.

BEDROOM WATER-BOTTLES.

A POINT in household sanitation which commonly receives little attention, and yet is of great importance, is the supply of water to bedroom water-bottles. Ostensibly for use in cleaning the teeth, the water placed in these bottles is almost constantly used for drinking, and yet its purity rarely has the attention which is given to the water placed on the tables. The bedroom water-bottle is usually filled by the housemaid from the same source as the water-jugs, in most cases from an upstairs cistern, which supplies the watercloset, and the overflow pipe from which it not rarely passes into the drain. Even in well-ordered houses this practice is too often resorted to, in lodging-houses almost invariably. It is a practice fraught with the highest danger—a danger which cannot be too strongly insisted on. We lately heard of a case of typhoid fever contracted at one of our most fashionable south of England watering-places, in consequence of the sufferer, being thirsty in the night, having incautiously drunk freely of the water placed in his water-bottle, and which had been taken directly from an upstairs cistern, afterwards found to be foul. It should be an invariable rule to observe the same precautions regarding the purity of water which is occasionally drunk as of that which is only for drinking purposes; and it is most important that, if the source or quality of the water is doubtful or unknown, only filtered water should be placed in these bottles, and that in no case should they be filled with water taken from a cistern which supplies a watercloset.

THE DISINFECTION OF AN ARMY.

IT would appear that the Russian army of the South, on its return from Turkey, was subjected to a process of disinfection on a gigantic scale—at least the personal effects of the men were disinfected, if not the men themselves. Vast disinfecting chambers had been constructed for the purpose at Odessa, Sebastopol, and Reni, each chamber being able to contain 5322 separate articles of the soldiers' dress and accoutrements deemed susceptible of conveying infection. At Odessa the infantry and artillery landed at that port numbered 48,323 men. Each soldier was required to present fifteen different articles for disinfection, the total number for the whole of the troops landed making 687,735. At Sebastopol 20,151 articles were disinfected. When this practice came into operation, what particular mode of disinfection was used, and even what particular disease or diseases it was directed against, are not reported.

The linen, surgical instruments, and material generally of three of the hospitals established by the Russians in Bulgaria, have been made over to the Bulgarian authorities.

HEALTH OF THE TROOPS IN CHATHAM GARRISON.

A STATEMENT has appeared to the effect that the patients, chiefly recruits, in the Military Hospital at Fort Pitt were dying at the rate of seven a week from typhoid fever and dysentery. On inquiry, however, we find that it is utterly false and unfounded. So far from this rate of mortality prevailing, we learn that only ten deaths by disease have occurred at Chatham among the soldiers since the beginning of this year. As the strength of the garrison is over 4000, this would give a porportion of less than four deaths per 1000 of the strength annually, or under half the average rate of mortality among troops serving in the United Kingdom. Not a single death was caused by typhoid fever or dysentery, and so far from the deaths occurring chiefly among the recruits, more than half of them were among soldiers above five years' service.

"HUNTING THE HARE."

IN a recent number we made some remarks on the subject of high game. We pointed out that in sickly animals putrefaction rapidly sets in after they have been slaughtered, and soon renders them unfit for food. According to Dr. Fournol, who has made his observations the subject of a communication to the Paris Academy of Sciences, a state of exhaustion at the time of killing is extremely favourable to early decomposition. With ordinary dogs a hare can run for about two hours and a half. When first started it goes "belly to earth," with its legs well stretched out, and leaving the print of the whole foot upon soft ground. After an hour the animal grows shorter and taller by a stiffening of its legs, thus gradually increasing its height, until it assumes the appearance of an angry cat. At this period of the hunt the extremities only of the feet touch the soil. If killed after a prolonged chase rigor mortis sets in immediately. Sub-

cutaneous ecchymoses are found, and decomposition, more especially when the entrails are not removed, is very rapid. Dr. Fournol attributes this to the complete exhaustion of nervous force at the moment when the animal is sacrificed.

INFANT MORTALITY IN THE AUSTRIAN EMPIRE.

THE rate of mortality among infants is excessive in most of the southern European States. In Austria and Hungary it shows a marked excess upon that which prevails in the German empire. According to periodical returns published by Joseph Korosi, the indefatigable statistician of Buda-Pesth, it appears that during the second quarter of this year the rates of infant mortality in some of the cities of the Austrian empire were especially noteworthy. During the three months under notice, among those Austrian and Hungarian cities for which these statistics are available, the lowest proportion of deaths under one year, to births recorded, was 199 per 1000 in Vienna; it was equal to 277 in Bucharest, 289 in Buda-Pesth, 355 in Pressburgh, and to 567 in Debreczen. The latter city is said to have a population of 46,000 persons, among whom 402 births and 228 deaths under one year were recorded in the three months ending June last. In twenty of the largest English towns during the same period the proportion of deaths of infants under one year to births registered did not exceed 141 per 1000. In the current quarter infant mortality in the Austrian cities shows a still larger proportional excess upon that prevailing in the English towns, owing to the far greater fatality of diarrhœa.

THE LATE SURGEON-MAJOR JOHN WALLACE.

WE gladly reproduce the following Brigade Order issued by the officer commanding the Khyber brigade, dated Lundi Kotal, July 17th, 1879:—"Surgeon-Major John Wallace, M.D., 12th Regiment, died last evening of cholera. In charge of the field hospital, Lundi Kotal, during a most trying and arduous time, he devoted himself to his duties with an energy which was ceaseless and untiring, and with a skill and kindness which will be remembered with gratitude by many a British soldier in this garrison. Thinking always of others, he took no heed of himself, but, working on in sickness as he had done in health, he laid himself open to the attacks of the disease which has stricken him down and has robbed his profession and his regiment of an honour to both."

SCURVY.

THE ship *Rydamel* has arrived in the Thames from Bassein with six or seven severe cases of scurvy on board, several of which are now in the Dreadnought Hospital at Greenwich. The Port Sanitary Authority and the Customs have reported the outbreak to the Board of Trade, and an official inquiry has been ordered by the President.

WE regret to announce the death, from cholera, at Rawul Pindee, Punjab, on the 21st July, of Surgeon-Major William Walker Galloway, of H.M. Indian Medical Service. Dr. Galloway, at the time of his decease, was in medical charge of the 45th Rattray's Sikhs.

WE understand that Dr. Grimshaw has been appointed Registrar-General for Ireland in succession to Dr. Burke. The appointment is one which will meet the approval of the profession.

DEPUTY SURGEON-GENERAL W. A. MACKINNON, C.B., has been appointed to succeed Deputy Surgeon-General R. Gilborne as Principal Medical Officer in China.

INCREASE OF REGISTERED LUNACY IN SCOTLAND.

THE Twenty-first Report of the General Commissioners in Lunacy for Scotland, which has just been issued, affords a far more satisfactory basis for estimating the increase of registered lunacy in Scotland than does the Irish report, recently noticed in these columns, with regard to Ireland. The number of lunatics within the cognisance of the Scotch Commissioners, which was but 5769 on January 1st, 1858, had increased to 9158 on January 1st last. This represents an actual increase of 3389 registered lunatics in the twenty-one years, equal to 58 per cent. upon the number in 1858. The report tells us that the increase of population in the same period was but 19 per cent., but does not attempt to state what is the actual increase in the proportion of registered lunacy in Scotland, after due allowance for increase of population. It may be calculated that the registered lunatics in Scotland on January 1st, 1858, were equal to 1·91 per 1000 of the population; whereas on January 1st last the proportion had increased to 2·54 per 1000. The difference between those rates, which is equal to 33 per cent., represents the true increase of registered lunacy in Scotland in the twenty-one years. The English report for 1878 has not yet been published, but the last available report shows that the proportion of recorded lunacy in England increased from 1·87 per 1000 on 1st January, 1859, to 2·76 at the beginning of 1878. It is evident, therefore, that the rate of increase in Scotland, although equal to 33 per cent. in the past twenty-one years, has not been so large as that which has prevailed in England. The increase of registered lunatics in Scotland, as in England, has been almost confined to pauper lunatics; the number of private lunatics shows a comparatively small increase. The last Scotch report discusses, at some length, the important question whether this marked and continuous increase in the proportions of recorded lunacy is due to a real increase of insanity among the population, or whether it may be otherwise accounted for. It is again pointed out, and in discussing these figures it should always be borne in mind, that the registered lunatics, whether in England, Scotland, or Ireland, do not correctly represent the insane element in the population. In Scotland, we are told there is an unknown number of indigent persons regarding whom certificates of lunacy might be obtained, but who, not being paupers, are not certified; doubtless there are also other persons, who are actually paupers, and whose mental condition would justify certificates of lunacy, but in whose cases no such certificates have been given. Unless these two classes could be completely brought into account, it would be impossible to determine the total amount of insanity or the true rate of increase of lunacy, either in the whole country or in different localities. In recent years many legislative changes have helped to increase the tendency to register cases of pauper lunacy; and so long as this unknown reserve of lunacy exists it is impossible to determine how much of the recorded increase is due to more general registration, and how much to real increase of insanity. With this important reservation, however, it will be useful to examine this rate of increase of registered lunacy in Scotland a little more closely, and see whether it be an increasing or decreasing rate of increase. It is to be regretted that in most of the summary tables of the Scottish report the figures are only given for the year 1858, and for each of the years 1870–79. The figures for the eleven years 1859–69 should also be given. These would be most valuable for studying the variations in the rate of increase. Using, however, the figures that are given, we find that in the twelve years 1858–70 the proportion of registered lunatics rose from 1·91 to 2·23 per 1000 of the population, showing an increase of 17 per cent.; whereas in the nine years 1870–79 the rate increased from 2·23 to 2·54 per 1000, equal to 14 per cent. The average annual rate of increase was larger in the more recent period. If we confine our attention to the last nine years, covered by the enumeration on the 1st January, of each of the ten years 1870–79, we shall find that, whereas the increase in the rate did not exceed 3·6 per cent. in the five years 1870–75, it was equal to 10·9 per cent. in the five years

1874-79. There can be no question, therefore, that the rate of increase of registered lunatics in Scotland is a decidedly increasing rate. We have noted that the rate of increase in England has in the past twenty years exceeded that which has prevailed in Scotland. Whereas, however, the rate of increase in England is a decreasing rate of increase, in Scotland it is an increasing rate of increase. This difference deserves further consideration.

Correspondence.

"Audi alteram partem."

DAVOS PLATZ.

To the Editor of THE LANCET.

SIR,—It is only natural that when a new health resort comes into notice voices both for and against it should make themselves heard, a general interchange of opinions being the only means of reaching a definite conclusion with respect to it. I as doctor, and especially as doctor of the English in Davos, do not generally consider it permissible for me to take a part in debates about the place, because my views would probably be looked upon as prejudiced; but when attacks upon Davos, founded on erroneous statements and misapprehensions, are made in the public prints I look upon it as a duty to come forward and give prominence to the real facts of the case.

Dr. Arthur Hill Hassall has published in THE LANCET of August 12th, 1879, an article which seems to me to require detailed consideration at my hands.

1. Dr. Hassall feels surprised at having suffered from breathlessness and oppression in the chest on transporting himself, in the short space of two or three days, after a pneumonic attack, to a valley considerably more elevated than the summit of any mountain in Great Britain. If, however, we take into account the fatigue of such a long and rapid journey—fifteen to eighteen hours daily per rail or diligence,—and remember that at the same time the patient reached a height of some six thousand feet above the sea, the symptoms described cease to excite astonishment. Either of these circumstances would in itself be sufficient to produce "apprehension" and other nervous conditions in a convalescent. That a rapid change to high altitudes has a powerful influence on the human organism is sufficiently demonstrated in the account given by aeronauts—viz., Gay-Lussac, and Barral and Bixio.

It is also not uncommon for patients to complain, during the first few days of their stay in Davos, of sleeplessness and singing in the ears; nevertheless, it is but seldom necessary to administer a small dose of bromide of potassium in order to allay restlessness, as in most cases the change is hardly felt.

2. Dr. Hassall takes as the basis of his conclusions the meteorological observations of the winter 1878-79. This winter was, however, throughout the whole of Europe, such a singularly unfavourable one, that it is certainly unfair to use it as a standard from which to judge the average climatic conditions of the place; and I believe that were a comparison to be made, free from all partisanship, between the weather reports from the health resorts on the Riviera and in England, the results would be by no means to the disadvantage of Davos. I must also observe that this winter the private observations afterwards published in THE LANCET were not taken with proper scientific accuracy. To my certain knowledge, the muslin covering round the wet bulb was never changed from August, 1878, to March, 1879; and when, shortly after the departure of the observer, this simple but essential process was gone through, marked improvement was observed in the relative position of the two bulbs, although the month of March was abnormally damp.

Quite incomprehensible to me is the following passage in Dr. Hassall's article: "The dry and wet bulb thermometers showed a difference of 2·80° only, indicating remarkable dryness of the air, although in one day there was a difference between the two bulbs of no less than 17°." My studies in physics have taught me that the air is driest when the difference between the two bulbs is greatest, because evaporation absorbs a great amount of heat, and progresses most rapidly in a dry atmosphere, thus producing a great depression in the column attached to the wet bulb.

3. Were Dr. Hassall correct in his statement that the patients could be on an average only about five hours daily in the fresh air, it would truly be better for them to remain at home. But exactly on this point does the superiority of Davos assert itself, as it permits invalids to breathe pure fresh air all night and all day. There are few, in fact I may venture to say no patients who cannot, if they are so inclined, sleep with safety with an open window during the winter. Even patients confined to bed inhale, as they lie there, fresh air, the necessity of this as a matter of primary importance being imposed upon the attendants by the doctor, due regard being always had to the strength of the sick person and the amount of air introduced. The public rooms are provided with ventilators, or where this is not the case the windows are opened frequently during the day, so that the atmosphere is constantly changed. The mode of heating adopted in the hotels patronised by English visitors is the china-stove, lighted at an open grate within the room, which has the same influence upon the air that fire-places have, only that draughts are avoided, and the whole atmosphere of the room is kept at a more equal temperature. If a Davos doctor finds a patient acting in opposition to the axiom of "fresh air," he is at once earnestly exhorted to live more in accordance with this rule. Let us think of the life led by a consumptive invalid during an English winter; how carefully his rooms are kept at an even temperature of about 65° F., how he is protected from every breath of air, lest the cold, damp atmosphere should injure him; and let us contrast all this with the existence of similar patients at Davos, who may be seen out of doors, even if it does [snow a little, seated on their hand sledges, or in merry groups pacing over the dry crisp snow. It is really not difficult to understand why the popularity of Davos yearly increases. I am not aware that anyone, even though he has spent only one winter in Davos, shares the opinion of Dr. Hassall, and, as a contrast to the picture drawn by him, I would call attention to an article in the *Pall Mall Gazette* of April 29th, 1879, written by one who is thoroughly acquainted with the place.

4. Dr. Hassall expresses himself in a somewhat unkindly spirit regarding the mode of treatment followed by the Davos doctors, and regrets that medicines should so seldom be had recourse to, while cold water, and even snow, are used to subdue feverish attacks. The treatment of fever by cold water has already become familiar in England and on the Continent, especially in Germany; hospitals are invariably provided with cold baths. Whether the theory is sound or not I do not presume to say; for only adequate statistics, not individual opinions, can lead to a satisfactory conclusion. However, to my knowledge, douches and cold baths have never been used in Davos to reduce the temperature of phthisical patients; indeed, fever is a definite contraindication for the douche, and only rubbing with wet towels or sponging in bed is ordered as antifebrile treatment. Quinine, digitalis, aconite, salicylic acid, and salines are all frequently prescribed remedies. The application of cold water has, further, certain contraindications which must never be lost sight of—viz., anæmia and weak action of the heart. If the patient suffers constantly from cold feet, has blue lips and finger-nails, or feels chilly in the warm sunshine even when well wrapped up—if the action of the heart is too weak, or the circulation insufficient to heat with oxidised blood all the parts of the body—no conscientious doctor will recommend the use of cold water to him. When, in such cases, medicines do not act satisfactorily, and fever continues despite their use, so that a collapse is shortly to be feared, then, and not till then, do Davos doctors have recourse to alcohol. It is nothing but a stimulant to be used in cases of threatened syncope, ordered for a considerable time. During my five years' practice in Davos I have only had two cases in which I was obliged to prescribe it. One of these is referred to by Dr. Hassall, who has received and reported a very exaggerated statement, as I am able, if required, to prove. The quantity I ordered in that case, as I should do in all similar cases, is 100 to 120 grammes of cognac per diem. In ordinary cases the quantity of alcohol prescribed is a very small one; at meals a single glass up to half a bottle of Veltlin wine, and, between meals, to very weakly patients, a little sherry or Marsala. Invalids are ordered to retire to rest by ten o'clock, and after that hour lights are seldom seen in Davos save in the sleeping-rooms. Many patients, again, have no

stimulants of any kind prescribed to them, but the doctor is often obliged to reprimand young men who are too determined votaries of Bacchus. In a few words, the above are the conditions in which use is made of alcohol, and I consider that it would be wrong were Davos doctors in certain desperate cases to abstain from prescribing it.

5. In conclusion, I must speak of Dr. Hassall's statistics, which, so far as he compares them with Davos, I must completely repudiate. It is an old, well-established fact, that persons placed in a low social position, and becoming phthisical, rapidly increase in weight, lose many of the symptoms of the disease, and become better when transported into more favourable conditions. Unfortunately I cannot reply with figures, but I believe it is well known that the inmates of the Royal National Hospital for Consumption and Diseases of the Chest, Ventnor, are chiefly servants, workpeople, artisans, with a certain proportion of persons of reduced means of the middle class of society, paying but 10s. a week. That such persons, particularly when the disease is in its early stages, when introduced to the frequently luxurious table of an English hospital, should make rapid progress, is easily to be understood. If, however, we turn to Davos, we find there among the visitors, patients who belong exclusively to the well-to-do classes, who become ill, though living in the most favourable conditions for the preservation of health, and who most certainly cannot find more in Davos than in the luxurious regions they have come from. If the statistics of Davos are to be compared with those of other places, a health-resort should be chosen frequented by the same class of patients.

Other points mentioned by Dr. Hassall I feel it unnecessary to allude to, as they have little to do with medical science. I would only wish to say, finally, that it seems to me to make little difference whether the patients have to leave the Riviera in April because of the heat, or Davos because of the snow melting. The Lake of Geneva or the Italian lakes are at least as easily reached from Davos as from San Remo.

I am, Sir, yours, &c.,

Davos Platz, August 29th, 1879. D. A. RUEDI.

MEDICAL WORK IN SOUTH AFRICA.

To the Editor of THE LANCET.

SIR,—Since writing my short letter to you on the late Dr. Lyle, I have read in *The Times* a long article headed "The Boers of South Africa," in which their disposition and general mode of life are by no means favourably exhibited. As, for at all events the next four or five years, these men and their families must necessarily constitute a large proportion of the patients allotted to Transvaal medical practitioners, it is as well to explain that the remarks made and the descriptions given of these Boers must be taken very much *cum grano salis*. I spent altogether two and a half months in what must be called a galloping scamper through Cape Colony, the Orange Free State, Griqualand West, the Transvaal, and Natal. In the Transvaal our system of travelling and of fare was roughest of the rough. We arrived at nightfall at a Dutch (Boer) farmhouse, and (as *The Times* correspondent writes) beyond the immediate cup of coffee, nothing was forthcoming until the supper hour. But I am bound to record that when this (to us) welcome hour arrived, we were always given of the best that the house afforded, that if we arrived after the evening meal, the remains, with suitable (and always sufficient) additions, were brought out for our benefit; that the best bed, if such existed, was always given up to us, and that when the dawn of day arrived, and we started after the matutinal coffee, the sum given for board and lodging would have satisfied the most economical traveller. I desire, however, to mention that a doctor always received especial welcome. On every occasion I neutralised my expenses by a simple prescription, and, had I been so minded, could have claimed and received a large douceur in addition. But our newly-created friends, as other individuals, require to be studied. They are men of few words. Trollope tells us, and I found sometimes to my temporary discomfort, that a shake of the hand all round, from the grandmother to the youngest child, was absolutely necessary to establish a footing of ordinary acquaintance, and an hour's interval of subsequent stolid staring at each other equally requisite to confirm the same. But in other countries worse penalties are prescribed to gain the friendship of the natives, and my own experience of this very salubrious province has led me to the belief that its inhabitants are very average human beings, and would make good, tractable, and withal good-paying patients. But, of course, the client must have faith in the practitioner.

I am, Sir, yours, &c.,

September, 1879. HARRY LEACH.

To the Editor of THE LANCET.

SIR,—Mr. Harry Leach's facile pen is at work again in advocating the claims of the Transvaal as a suitable field for English medical men who are unequal to the struggle for existence at home. It cannot be denied that Mr. Leach writes with a certain amount of authority about South Africa, for has he not made a hasty scamper over a country of which Mr. Trollope is said to have remarked that the greatest praise that could be given it was that there is "a great deal of it." But I can claim to speak more from precise knowledge and less from hearsay than Mr. Leach, having practised for some years—not, indeed, in the Transvaal, but—in a village of the old colony, and I would counsel anyone likely to be led away by Mr. Leach's eloquent, but I fear too *couleur de rose* statements, to consider one or two points on the contra side. And, first, Mr. Leach has apparently forgotten that there are a large number of civil surgeons—between thirty and forty, I believe—now with the army in South Africa, but who will be free to go where they please at the end of the war. It will not be contended that these gentlemen are likely to be over-fastidious, having already accepted an anomalous and invidious position. The opportunities which offer in the Transvaal, having regard to the scanty white population and the paucity of villages, cannot be very numerous; and I venture to say, if one-third of these gentlemen remain behind the market will be overstocked, and that largely, so that the late Dr. Vacy Lyle's wishes are likely to be fulfilled without Mr. Leach's advocacy. As to Natal, the Orange Free State, and the Cape Colony, the same remarks apply: opportunities *do* offer now and then in the remote villages; the towns are well supplied with doctors. In these country practices a fair income can be made with much less work and greater facility than in England; but there are many disadvantages which ought not to be overlooked, such as isolation complete and absolute, the often miserable houses, and squalid, unteachable black servants, the absence of what we consider rather necessaries than comforts at home, the trying summer heat, all these and many other disagreeables make it almost a cruelty to take a delicately nurtured wife to bear the brunt of them, unless, indeed, she is more adaptable to circumstances than most English girls. Then on the man's side must be considered the necessary acquisition of the Dutch patois, a horrible lingo, insuperable to many insular tongues; the antagonism of quacks and old women, with whom he is classed; the unpleasant habits and customs and superstitious ignorance of the Boers, who will constitute 90 per cent. of his patients (these are well described in a letter to *The Times* of August 30th, in which, however, the most objectionable features are passed over); lastly, the long, tedious journeys, sometimes extending over several days, to visit one patient, over unutterable roads, or rather tracks, on which a spill with more or less serious consequences is a pretty frequent occurrence. And the man in weak health must remember that he may not seldom have to sleep in the open, and that the Transvaal climate is a treacherous one for this, owing to the great difference between diurnal and nocturnal temperatures, and the heavy dews and rains at certain seasons. As to sport, there is little indeed, except in the outlying parts of the Transvaal and Free State, as the Boer shoots for the pot, or for killing's sake, at all seasons. South Africa, in its more civilised parts, is one of the poorest countries in the world for sport, so sportsmen tell me.

I will conclude by agreeing with Mr. Leach, that a living can be made, and something more, in the Transvaal, but the aspirant should be young, unincumbered, not too fastidious, but adaptable to circumstances, and should not be without funds to keep him for some few months. But how about the civil surgeons on the spot?

I am, Sir, yours, &c.,

September 1st, 1879. CAPENSIS.

TREATMENT OF PNEUMONIA.

To the Editor of THE LANCET.

SIR,—The methods of treatment in an ordinary case of acute croupous pneumonia, such as is related by your correspondent in last week's issue, are so numerous and varied that it is little to be wondered at that those who have not adopted, from experience or College bigotry, a special plan should be somewhat doubtful as to which course to pursue, or, having treated a case in various ways, should be doubtful as to which particular remedies the benefits are due.

The "expectant plan," often commenced with but seldom carried entirely through, is unscientific and, of course, useless. Even when a case presents itself to us too late for decided antiphlogistic treatment, we can assist nature in a favourable case by giving antimony, diaphoretics, and opium, or in a dangerous one by the administration of stimulants. It is useless ascribing the benefits to a particular line of treatment which is employed just before the crisis of the disease, because its natural history tells us at what time to expect an improvement.

In the early stage, there is little doubt in the mind of those who have properly carried it out, of the beneficial results of antiphlogistic treatment,—in sthenic cases, by venesection and leeches, with calomel, opium, and aconite or tartar-emetic, and in less robust individuals leeches, with smaller doses of calomel, opium, and the cardiac depressants. As the crisis is approaching, perhaps stimulants may be required in a severe case, but in favourable cases nothing more is required than smaller doses of the cardiac depressants, combined with opium. Practically the combination of the above cardiac depressants with ammonia or alcohol is often of advantage as this period of the disease is being passed through. After the crisis is past the opium is better left off, but the mercury should be continued, and is advantageously combined with iodide of potassium. If the signs of the local mischief do not clear up as they ought to do, *large* blisters over the affected part will bring about the required change.

After having tried most of the methods in vogue, I have satisfied myself that the above measures, though active at first, are followed by a milder and more favourable course of the disease. Besides being supported by the results of science, they are justified upon appeal to reason.

The circulatory depression induced by the drugs must obviously limit the inflammatory effusion, and consequently must have a favourable influence by causing less material to be afterwards cleared up. The opium relieves pain, keeps all parts at rest, and is in this sense antiphlogistic, besides having apparently some specific action upon the process of inflammation. The calomel is practically an advantage, but a theory in support of it has yet to be made. Venesection must be performed rapidly, otherwise it does not induce depression of the cardiac excitement. Stimulants during the dangerous period—that is just before the crisis—seem to have other and as important influences as their action on the heart. Space will not permit me to enlarge further, but these are some of the arguments in support of this plan.

I am, Sir, yours, &c.,

T. FREDK. PEARSE, M.D.

Bramshot, Liphook, Hants, August 25th, 1879.

To the Editor of THE LANCET.

SIR,—Acute sthenic pneumonia is ushered in with one single rigor, and runs a definite course of seven days; if you can keep your patient alive until the eighth day, the prognosis is favourable. Several shivering fits are not an unusual precursor in catarrhal or broncho-pneumonia, in pneumo-pleuritis, and pneumonia with other complications; also these forms of the disease run a longer and different course to simple acute pneumonia.

In answer to Mr. Moore's question, with respect to the treatment pursued, in his interesting case published in your issue of the 23rd inst., there is not the least doubt in my mind that it was the brandy and egg which enabled his patient to surmount the crisis. A lowering treatment does not suit pneumonia. I have had lately under my care a large number of acute cases of pneumonia of both lungs, one of my patients being over eighty years of age. The treatment adopted, and which has proved successful, is to order them a mixture containing liquor ammoniæ acetatis and vinum ipecac. for the first two days, with a slop nourishing diet; the local measures being turpentine stupes or jacket linseed-meal poultices during this the period of engorgement.

On the third day, order three ounces of brandy; on the fourth, fifth, and sixth days steadily increase the stimulants, giving it in milk and egg; also order a draught containing two grains of quinine, to be taken every four hours. Envelop the chest in cotton-wool, which is both beneficial and comforting to the patient. The quantity of stimulant ordered must be regulated in accordance with the previous habits of your patient: begin with small quantities, increasing the dose steadily up to the seventh day. Be careful strictly to watch over the nurse; everything depends upon her. If she neglects his nourishment during the nights of the sixth and seventh days of the disease, the patient is bound to slip through your fingers, especially if previously addicted to intemperance.

I am, Sir, yours faithfully,

SAMUEL BENTON, M.R.C.S. & L.R.C.P.

Bennett-street, S.W., Aug. 26th, 1879.

THE CIVIL SURGEONS IN THE ZULU CAMPAIGN.

To the Editor of THE LANCET.

SIR,—With the return of the British army from Zululand comes the consideration of well-earned promotion and rewards. The valuable services rendered by civil surgeons attached to the British army during the campaign (often at the imminent risk of their own lives) cannot be rewarded by promotion or by military honours; but, nevertheless, I trust they will not be allowed to pass without suitable recognition and reward.

The correspondents of the daily press have frequently borne testimony to the honourable devotion of several of these gentlemen in attending the wounded under fire, or when closely pressed by the Zulus; and this testimony is, I know, endorsed by despatches and official reports sent to the War Office. In the *London Gazette* of August 21st there is a despatch from the renowned Colonel Buller, in which he says, "Throughout the operations the sick and wounded of the Mounted Corps have had the advantage of the services of Civil Surgeons Connolly and Jolly. These two gentlemen have been alike remarkable for the readiness with which they have treated wounded men under fire, and for the kindness and attention they have paid to them in camp. During the retreat from Hlobana Mountain, on March 28th, these two gentlemen not only remained with the rearguard to treat wounded, but when not so employed greatly assisted the rearguard, using the rifles of the wounded."

By inserting this note in your next issue, you will probably be the means of ensuring

HONOUR TO WHOM HONOUR IS DUE.

August 28th, 1879.

HÆMATINURIA.

To the Editor of THE LANCET.

SIR,—The interesting lecture on hæmatinuria, in your issue of August 30th, by Dr. Charteris, has induced me to send you the particulars of the following case:—On May 3rd last a young man was sent round to me by our local chemist. He complained that his water was not quite right, and on his passing some at my request I was quite startled to find that it was of a very dark port-wine colour. I found, however, that there was no blood actually present, but that the darkening was due to the hæmatin. The urine coagulated slightly on the addition of nitric acid and heat. The patient complained of an aching sensation in the back, and said he had had several slight shivering fits. He had been exposed to cold all day before the attack came on. I may mention that his occupation is that of clerk to a shipping firm, and that he is a good deal exposed to cold and river air, so that malaria cannot be quite excluded, though he has never had any other symptoms of it. He had also had a good deal of worry of a domestic nature just before his seizure. He is

a man of temperate habits, and none of his family have suffered from gout.

The treatment I adopted was rest, warmth, and the administration of nux vomica, tincture of perchloride of iron, and dilute mineral acids. I also recommended him to take one or two Turkish baths.

The dark colour soon disappeared from the urine, and, though I have seen him several times since, has not returned, though he continues to follow his old occupation.

I am, Sir, yours, &c.,

WM. DOUGLAS STRANG, M.R.C.S., L.R.C.P.E.

Queen Adelaide-road, Penge, Sept. 1st.

THE GENERAL PRACTITIONER.

To the Editor of THE LANCET.

SIR,—Your correspondents, William Milligan and Medicus, in commenting upon your leading article on the "General Practitioner," have made this a peg upon which to hang private grievances of their own. If either of these gentlemen lived in a large town they would cease to be troubled by such small things, for it is no unusual occurrence to find patients under the sole care of a dispensing practitioner one week, and of a consultant the next; such consultant being often in general practice, or a physician paying two or three visits for a guinea. For some years this was annoying to me, till, my morbid sensitiveness having been rasped away by the frequency of its occurrence, I came to recognise the fact, unpleasant though it be, that patients who can and will pay will also exercise an Englishman's undoubted right of private judgment, regardless of the feelings of the medical practitioner. Reflection, also, has made me admit that there is likewise a physician's side to the question. Look at our country towns where several physicians used, thirty years ago and within my own recollection, to flourish and make fortunes, and where are they now! Gone, or if one be left, who is keeping up the fees, he is, unless a wealthy man, very much in the cold. He has no midwifery, no dispensing, no clubs and parish appointments to help him step by step, and, if he is to live, "he must do as Rome does."

Let each practitioner act according to his conscience, and give others the credit of acting in the same way, and little damage will either be done or sustained.

I am, Sir, your obliged servant,

London, Sept. 2nd, 1879. AN OLD CONTRIBUTOR.

PARIS.

(From our own Correspondent.)

ONE of the leading figures of Parisian surgery has departed from this scene. Chassaignac died on August 26th. Born in 1804, he was seventy-four years old at the time of his death. This eminent man, whose name has been so long before the public, was not in his earlier days a favourite, at least not in official regions. After struggling through the minor grades of prosector, *agrégé*, and surgeon to the hospitals, he attempted, but unsuccessfully, to reach the higher honours of the professorship. His efforts were unavailing, not through any deficiency on his part, but because the influence which then prevailed in favour of other candidates was preponderating. His chief opponent was the celebrated Professor Denonvilliers, whose success, it may be said, was greater in the preliminary trials which led to his chair than in the chair itself. Chassaignac, debarred from what had been the chief ambition of his life, devoted the remainder of his activity to original inventions in surgery, which for a time brought him into great discredit with the official leaders of the profession. To him the introduction of drainage, and of *écrasement linéaire*, must be attributed, and he was certainly one of the first to advocate the method of dressing wounds which, under the skilful hands of Dr. Guérin, has obtained such signal success in later times. A long and painful controversy went on about these new inventions, in which Chassaignac was treated as little better than a quack. For a long time he was excluded from the Academy of Medicine, the doors of which were opened to him only a few years ago. During the latter part of his life he suffered from diabetes, and kept out of the busy throng, residing chiefly at Versailles, and only coming occasionally to Paris. His death was sudden and unexpected, like that of many sufferers of the same class, and now that time has passed over all the angry controversies to which his ideas gave rise, now that the disputants themselves have dropped into the grave, his merits will be universally acknowledged, and he will stand forward as one of the most original inventors of the nineteenth century.

Dr. Sayre is at the present time in Paris, and has been operating according to his well-known principles in the hospitals. In one case which lately came under my notice in the wards of Professor Ball, extension of the spine was performed on a young girl who had been labouring under Pott's disease for some time, and whose lower extremities had been paralysed since the beginning of March. The result was highly satisfactory, especially from a surgical point of view. With respect to the paralysis, the only improvement hitherto obtained has been the restoration of sensibility, the loss of motor power still persisting.

The state of the atmosphere would seem in some measure to have retarded the ordinary evolution of disease in this city, and to have given rise in September to the diseases which are usually current in July and August. A case of cholera (?) occurred the other day at the Hôpital Tenon (Menilmontant), and intestinal derangements would appear at the present moment to be rather frequent. This may be partially due, however, to the backwardness of fruit, which is consequently eaten in an immature and unwholesome condition by all classes.

Professor Vulpian's note to the Academy of Sciences, embodying M. Mourrut's researches on the value of pepsine, has led to some amount of recrimination by other pharmacists. It would appear that during the Paris exhibition of 1878, M. Mourrut exhibited under his own name a special digestive preparation enclosed in wafers, which he, of course, considers infinitely superior to anything else of the kind. If we may believe in the old proverb that "two of a trade never agree," a clue may have been found to the extreme hostility evinced by M. Mourrut to all the alcoholic preparations of pepsine, a point which probably escaped Professor Vulpian's acute observation when he consented to become the mouthpiece of M. Mourrut.

The Prefet de la Seine has sent a circular to the competent authorities concerning the religious element, in the situation of hospital patients, which has created great discussion. Hitherto it has been the practice to inscribe in a visible manner on the patient's bed-card the religion to which he belongs; nominally in order to facilitate the action of ministers of various creeds at the bedsides of the members of their folds. Practically it has been found that the sheep are not always anxious for the visitations of their shepherds, and it is therefore proposed to suppress the indication altogether. In future, dying sinners who may wish for spiritual assistance will have to express that desire; they will otherwise be left to their own devices. Some of the leading Paris journals denounce this measure as being dictated by a spirit of intolerance, but, on the contrary, it would seem to realise the *beau idéal* of toleration. "Every man in his humour," as Ben Jonson would say.

EMS; BADEN-BADEN; WILDBAD.

(From our Roaming Correspondent.)

THE river Lahn, which rises in the western half of the Taunus mountains, flows into the Rhine a little above Coblenz, and on the banks of that river, a few miles only from its mouth, is situated *Ems*, a bathing-place which has had some repute for nearly three centuries, which has become fashionable during the last few decades, and which has achieved an historical fame as the place where Benedetti's conduct to the Emperor William finally brought the French and German nations into collision in 1870.

Ems is situated on both banks of the Lahn, which is about sixty feet in breadth, and is spanned by four bridges, which allow of ready access to all parts of the town. The Lahn valley at Ems runs nearly east and west, and is extremely picturesque. The hills on either side are of moderate elevation, and are well clothed with a great variety of foliage.

The valley is somewhat narrow, so narrow, in fact, that it might almost be called a gorge; and herein lies the principal drawback to Ems as a summer residence, for at times the heat is apt to be almost unbearable. From this fact I should counsel visitors to Ems to go in the early summer, or later in the year, when the summer heat is a little over-past. Those who visit Ems in July or August should be most careful to select an hotel or a lodging on the left bank of the Lahn, in order that the midday and afternoon sun may be avoided. The Lahn is a good substantial stream, and contains a large volume of water, so that, although it appears to be used as a drain, it is not likely to be a nuisance. The soil of Ems is of a shaly porous character, and although the rainfall, as is always the case in mountainous districts, is above the average, the soil is seldom damp for many hours together.

Ems is well provided with all those accessories which are considered indispensable by frequenters of baths. The Kursaal is as fine as ever a kursaal can be, and has the usual suite of rooms for reading, conversation, and amusement. The Kurhaus, containing the drinking-fountains, is an older structure, dating from the middle of the eighteenth century. The right bank of the Lahn is laid out with very great taste in the form of a recreation park, and in it is an extensive colonnade for use in wet weather, so that patients may take their water, enjoy their exercise, and reach the new bath-house on the opposite bank of the river without exposure to rain. Hotels, restaurants, and shops for the sale of trifles abound in Ems on every side. The frequenters come from every part of the civilised world, and if one race predominates over another I should say, judging from the physiognomies and the names in the guest-list, that that race is the race of Israel.

The springs in Ems are very numerous, and have a strong family likeness to each other. The best known are the Krähnchen, the Fürstenbrunnen, and the Kesselbrunnen. These are all hot, varying in temperature from 118° F. (Kesselbrunnen) to 98° F. (Krähnchen). Taking the Krähnchen as the type of the rest, I find that each litre contains two grammes of carbonate of soda and one gramme of common salt, in addition to smaller quantities of sulphate of soda and bicarbonates of the alkaline earths, which together make up a total of three grammes and a half of solid contents in each litre. The water contains also a considerable quantity of free carbonic acid, and most of them are not unpleasant to the taste. One finds in Ems, as one finds at every mineral bath, invalids of all descriptions; for very few invalids would not be benefited by a healthy existence in the air of Ems as well as elsewhere. Is there not, however, some particular class of patients for whom the weak, warm alkaline waters of Ems are peculiarly suited? Without entering into the discussion of the why and the wherefore, and without alluding to the various theories of the action of bicarbonates of soda in the economy, I may say that the reputation of Ems as a healing spring mainly lies in the power which it is alleged to possess of combating catarrhal conditions of all the mucous membranes, whether respiratory, digestive, or genito-urinary. Chronic catarrh is the symptom which the greater part of those who come to Ems manifest in one form or another. Whether the catarrh affect the nose and the upper regions of the respiratory track, or, by attacking the distal ends of the bronchial tubes, is leading the sufferer towards emphysema or consumption, the benefit to be found at Ems is said to be equally great. For certain forms of spasmodic asthma which are complicated by a catarrhal condition of the bronchi, a residence at Ems is said to be beneficial. For catarrhal conditions of the digestive tract, especially such as accompany congestion of the portal circulation and a plethoric and gouty habit of body, Ems water, both internally and externally, is in good repute. Ems is much frequented by married ladies whose longings for a family have not been gratified, and, inasmuch as sterility is often merely a symptom of anæmia, and is often accompanied by leucorrhœa and vaginal catarrh, it follows that many of those who come to Ems for the purpose of being rid of the curse of barrenness apparently achieve their object by a course of the waters.

The various chronic conditions which are relieved by an open-air life, hot baths, a spare diet, and a replacing of a certain quantity of strong drink by a weak solution of alkaline carbonates, may find amelioration at Ems as well as elsewhere; but the special indications for the exhibition of Ems water are said, by those who know best, to be such as I have enumerated above.

The hills which hem in the town rather too closely are an impediment to walking and driving, and it is not easy to get out of the valley without a considerable climb. It seems to me that the Lahn, which is a good broad river and not too swift, offers great facilities for boating which have not yet been utilised. At Coblenz, where rowing is a great difficulty owing to the rapidity of the Rhine, there is a boating club. Why is there not one upon the far more sluggish stream of the Lahn? The new bath-house contains every description of bath which can be needed for the treatment of patients.

Baden-Baden is certainly, and has every right to be so considered, the capital of bathing resorts throughout Europe. Of all that I have visited it is undoubtedly the most lovely; and whether regard be had to its natural beauties, or to the attractions which have been added artificially, it is quite unsurpassed, and must, I should say, be unsurpassable. The town lies in the valley of the Oos, about 600 feet above the level of the sea. The valley is sufficiently wide and open to allow of the free access of the wind, but, being narrower at the eastern than the western extremity, it is protected in great measure from the annoyance of strong easterly winds. The town is built on a series of undulating hills, of which that on which the grand ducal residence is situated is the highest, and overtops the others, thus forming, with the picturesque old château as a crown, an object of great beauty. The hilly, undulating ground is very favourable for the thorough drainage of the town, the drains ultimately finding their way into the stream of the Oos, which, being artificially narrowed by means of a brick embankment as it courses through the town itself, flows with the rapidity of a mill-stream, and carries all the sewage and surface-water rapidly and effectually away, without causing any annoyance. The neighbouring hills, the highest of which reach an altitude of about 1800 feet, are clothed to their summits with the pine, which is characteristic of the Black Forest; and from these pine-clothed peaks refreshing breezes find their way into the town, which, being planted with a variety of umbrageous trees, always affords cool shelter for its visitors, even on the hottest days.

Baden has nearly twenty hot mineral springs, which yield, it is said, nearly a million litres of water per diem. The temperature of these springs varies from about 112° F. to 135° F. Their mineralisation is weak; the chief ingredient is chloride of sodium, of which the strongest only contains about 2 grammes to the litre. The other ingredients, consisting of carbonates, sulphates, and silicates of the alkalies and alkaline earths, are present only in small quantities, the total solid contents per litre amounting to only 3 grammes as a maximum. The waters of Baden are, therefore, hot, weak, saline waters. Most of the springs contain traces of lithium; and this fact is used to dazzle the eyes of sufferers from gout who have heard or read of lithia and of uric acid. The strongest lithium spring, however, contains only about 4 centigrammes of chloride of lithium to the litre, so that a patient, in order to get a dose of 10 grains of the salt, would have, roughly speaking, to drink about seven gallons of the water. Like a late well-known statesman, he would probably come to the conclusion that the disease was preferable to the remedy. The mineralisation of the waters being so slight, they are not employed to any very great extent for drinking purposes, although they are prescribed by the local physicians for a variety of diseases, including portal congestion, general plethora, gout, and chronic rheumatism. Like our own waters of Bath, those of Baden Baden are chiefly employed for bathing purposes. In addition to the ordinary effects of hot water, which they produce in common with all other thermal springs, the salt which they contain adds to their power of skin stimulation, and consequently the reflex effects which are producible in that way are proportionate.

The service which the baths of Baden render in combating the symptoms of chronic rheumatism and gout admits of no dispute, and they are also of use in strumous diseases of the bones and joints, and in cases of stiffness following injury. The facilities for bathing which exist in Baden are unequalled, and I doubt if any establishment so complete and so magnificently luxurious as the Friedrichsbad at Baden has been seen since the gigantic baths of Caracalla were a source of wonder and delight to the inhabitants of Imperial Rome. The centre of the building is occupied by a tepid swimming bath, constructed entirely of white marble, and lighted by a lofty glass cupola. Around it are baths of every description, and in every degree of luxury, from the

magnificent Fürstenbad, designed for the use of kings and princes, or those who can pay in royal fashion, to the simple bath which is well within the reach of moderate means. "Wildbäder" are among the specialties of Baden. These are marble basins filled with mineral water and containing a quantity of sand and finely powdered granite, with which the bather rubs the surface of the body, and so increases the amount of that skin stimulation which is one of the main objects of baths of all kinds.

In addition to Wildbäder there are to be found in this establishment ordinary baths, both hot and cold, every form of shower and douche, vapour baths, Turkish baths, inhalation rooms, electric baths, tranquil chambers (in which patients may repose after the fatigue of bathing), and a gorgeous saloon, where all the pleasures of society may be enjoyed. This temple of the nymphs of Baden is furnished with a façade of great architectural beauty, upon which are inscribed in golden letters the following stanza by Germany's greatest poet:—

Wunderwirkend strömt die Welle
Strömt der heisse Dampf der Quelle,
Muth wird freier, Blut wird neuer,
Heil dem Wasser, Heil dem Feuer.

But the majority of those who come to Baden are not ill at all. It is a paradise of the luxurious and the idle. The "Conver-versation House," as the Kursaal is called, was built with a lavish outlay in the old days of the gaming-table, and is furnished with reading-room, concert-room, and restaurant. The kurgarten is laid out and planted with the greatest taste; a band of nearly fifty performers plays three times daily; and the trinkhalle affords a fine arcade, adorned with frescoes, where those who make a pretence of drinking may gossip and flirt in downright earnest. The woods in all directions are intersected with drives for the benefit of pedestrians and equestrians, and the long-shaded avenue of the Lichtenthaler Allee is at once the most charming and most fashionable drive to be found in Europe.

He who finds his way on foot, as I did, from Baden-Baden to *Wildbad* will have a most enjoyable walk, for there is a beauty and a freshness about the scenery of the Black Forest which are peculiarly its own. It lacks the grandeur of Switzerland, for the highest of its hills are not more than about 3000 feet, but to stroll along the best of roads through dense forests of pine; to catch a light at intervals of valleys green as emeralds, cultivated like gardens, and dotted with picturesque chalets; to meet the peasants habited in many-coloured dresses, and bearing on their heads baskets of wild raspberries, the result of their day's labour; to hear the lowing of the kine and the far-off crack of the waggoner's whip which alone breaks in upon the deep stillness of the forest; to see the feathery outline of the dusky hills stand out in bold relief against the blue-green sky of sunset; to feel the quiet of the day deepen into absolute repose as daylight fails; to hear the cheery "*guten abend*" of the peasant in the dusk; to see the evening star stand in bold contrast to the now black outline of the hills, and the glow-worms glistening among the scarcely visible pine-stems; these are conditions which have a charm for the most prosaic mind and teach one why it is that the Black Forest is the chosen resting place and health resort for the whole of Germany.

The Black Forest is dotted at frequent intervals with health resorts in which the enticements of hydropathy are added to the charms of nature. At Gernsbach, some eight miles from Baden, is a large "Hotel des Bains," which is always crowded in the summer months; and at Herrenalt, between Gernsbach and Wildbad, is a large Wasser Heil Anstalt, where large numbers of "patients" can be accommodated.

The valley of the Enz, in which Wildbad lies at a height of some 1300 feet above sea-level, runs in a direction nearly due north and south. The valley is not so narrow as that of Ems, but it is none too wide, and consequently the heat is occasionally considerable. The town of Wildbad is well cared for, and is provided with a good water-supply and good drainage into the rapid stream of the Enz. There is a railway-station in the town, whence Pforzheim Junction is easily reached. The hotels are numerous, large, and first-rate; the bath-house is only less magnificent than that at Baden; there is a beautiful trinkhalle and arcade for wet weather; the gardens are abundant, and well provided with seats and shady trees, and, in short, there is every provision for the comfort and amusement of a large number of guests.

The waters contain so small a quantity of dissolved matter that they have been classed among "indifferent" waters. As a matter of fact they contain about four grains of solid contents to the pint, of which two grains are chloride of sodium, and the remainder is mainly composed of carbonates of lime, magnesia, and soda, with a very small quantity (0·3 gr.) of sulphate of soda.

The waters of Wildbad are more used for bathing than for drinking purposes, and, as a matter of fact, it is quite exceptional to take them internally.

This bath is much frequented by English, and as one sat in the "anlage" the English tongue struck upon the ear from all sides, and it chanced more than once that the familiar name of an English physician entered into the conversation of gossiping invalids.

The reputation of the baths of Wildbad as a therapeutic agent is due mainly to their good effect in all forms of gout, chronic rheumatism, and rheumatoid arthritis. They are also very largely frequented by sufferers from various forms of paralysis, whether from lesions of the brain, spinal cord, or nerves, and doubtless in such cases, where the lesion is of a curable or semi-curable nature, much good may be done by a course of hot baths. It is not necessary to travel as far as Wildbad to test the truth of that. The patients who find most advantage from a sojourn in Wildbad are precisely the same as those who are benefited by Bath or Buxton. Wildbad differs from most other baths in this, that the majority of the visitors seem to be really invalids. Persons may be seen by dozens limping in cloth shoes, or carrying a swollen hand in a sling; numbers stricken with hemiplegia shuffle along supported by a friend; others are equally numerous who require the help of crutches to take the place of legs whose power is failing; while those whose locomotion is performed by means of a Bath chair outnumber all the other obvious invalids. These latter are chiefly ladies, and one may fairly hope that their ailments are in many cases due to emotional or passing causes, and that they will return to their homes to sing the praises of the Bethesda which they have found in the Black Forest. In conclusion, I must mention the excellent simple-wheeled chairs which are made by Pfeiffer, of Wildbad, and which may be regarded as among the praiseworthy specialties of the place.

ZULULAND.

(*From an occasional Correspondent.*)

THERE has been a general breaking-up of the First Division; the greater portion of the troops have proceeded to take up positions nearer to the king's defunct kraal Ulundini. The troops were formed into two brigades, and took with them their respective field hospitals and medical staffs. The force left here is very small, and there is also a field base hospital here, from which the sick are shipped for the base hospital at Durban, the sick from the advanced columns being sent back to the hospital. Sickness still prevails to a great extent, amongst the young unseasoned troops especially. A statistical statement is being prepared showing the percentage of sickness at various ages, and the advantage is largely in favour of men over thirty-five years of age.

The new base hospital here is now removed beyond a belt of trees facing the sea—a position I pointed out long since as more suitable than on the marshy plains as heretofore; it is also very convenient for shipment of the sick for Durban. The weather is very cold and damp night and morning, and we have had heavy occasional rains.

The new pattern pharmacy waggons, to which you refer in your issue of the 14th ult., have not arrived yet at this column, but a first batch of orderlies came in this week, together with additional medical officers, now all the brunt of the work is over. The pharmacy waggon will come just in time probably to be sent back again untouched or unused.

We had an official visit from the Surgeon-General, Dr. Woolfryes, C.B., last week, and he expressed strong views against the site of our camps. Probably this is the reason of the hasty changes which have taken place for the better in a hygienic point of view.

General Crealock left yesterday for Durban. He had a regular Hyde-park inspection of the troops on the 23rd inst., and took his farewell. Some people have expressed strong views about this general's tardy movements; and in expla-

nation of the statement which appeared in the local press, which was reported to have come from General Lord Chelmsford, to the effect that Lord Chelmsford exclaimed, when advancing to destroy the king's kraal, "Where is Crealock? Signal for him to advance." But no response to the signal took place, as General Crealock was comfortably quartered in his elegant marquee at this place. He said I have strictly obeyed my "orders," which were to establish forts along the south coast as far as Point Durnford. But why was the column detained so long at Fort Chelmsford and the Tugela, when stores enough were at Fort Chelmsford rotting away to supply the whole force for weeks, and sickness was decimating the troops there? Many a fine fellow is in his grave now through the effects of fever caught whilst lying at this unhealthy fort, who might have been saved, humanly speaking, had the column advanced earlier; for it has been proved that whilst the troops are moving little sickness takes place. But it may interest the total abstainer to know that both teetotalers and non-abstainers suffer alike here; also smokers and non-smokers. This is a very interesting fact.

Fort Durnford, Zululand, 25th July, 1879.

Obituary.

JAMES BROAD, M.D.

OUR obituary records the death of Dr. James Broad, which is worthy, on some grounds, of more than passing notice. In 1858 he was house-surgeon at Guy's, and is well remembered by many old students for the gentle, kind, and efficient way in which he discharged the duties of that office. With courteous manners and thorough knowledge of his profession, he seemed a type of the successful practitioner, which no doubt he would have become, but after practising with Mr. Marshall, of Mitcham, and on his own account for a few years, increasing dyspnœa compelled him to give up practice. A diagnosis of contracted mitral with dilated heart, made by Sir William Gull, was confirmed at the post-mortem examination. For the last four years he had been well-nigh confined to the house, and with a full knowledge of his uncertain life, and an increasing affliction of deafness, he retained unimpaired intellect, and full interest in all things professional, as well as in general literature and science. He thoroughly carried out the advice given years ago by Mr. Bell (who still survives at a venerable age in White's Selbourne) to the students of his hospital, to get some pursuit outside the practice of the profession, "so that when age or infirmity may debar one from active work, the recreation of active life may become the solace of the enforced retirement." Without unavailing expression of regret at his disablement, he became to those who, from old association, were still drawn to his society, a most useful adviser, and to his own relatives "a guardian angel in the house, so pure and good, so free from self-seeking was he." He passed away quietly in sleep, exhibiting the most placid and happy dead face that the writer has ever seen. His age was forty-two. His life and death bear out St. Augustine's saying: "Sunt qui cum patientiâ moriuntur, sunt autem quidam perfecti, qui cum patientiâ vivunt."

T. B. HAY, M.R.C.S. & L.R.C.P. EDIN.

MR. HAY will be remembered by many of his teachers in University College, where he distinguished himself by taking a gold medal, and in other ways, about fifteen years ago. He commenced practice in the Caledonian-road, Islington, and in this neighbourhood soon became exceedingly popular. He practised with no consideration for himself or his health. It is said that he would make from fifty to eighty visits a day, and attend personally over 400 obstetric cases yearly, besides having evening consultations. Such work can only serve as a warning to others, though he seemed impelled to it, not by love of money, but by love of work and pity for the poor, which was in him a strong and irresistible motive. We need scarcely add that his health soon broke down under such labour, and he was advised by Dr. Wilson Fox to go to New Zealand. Here he was appointed Lecturer on Materia Medica in the School of Medicine in Christchurch, and soon got into large practice. His health again gave way, and a brief telegram has announced his untimely death.

Medical News.

UNIVERSITY OF LONDON.—The following is a list of the candidates who have passed the recent First M.B. (Honours) Examination:—

ANATOMY.

FIRST CLASS.

Crookshank, Edgar M. (Exhibition and Gold Medal), King's College.
* Lane, William (Gold Medal), Guy's Hospital.
† Mortimer, John Desmond Ernest, Westminster Hospital.

THIRD CLASS.

Eq. { Meeson, Alfred, Liverpool Royal Infirmary.
Eq. { Udale, Joseph James, Guy's Hospital.

HISTOLOGY AND PHYSIOLOGY.

FIRST CLASS.

Harris, Thomas, Owens College.
Fielden, William Eckett, Guy's Hospital.

SECOND CLASS.

Lane, William, Guy's Hospital.

ORGANIC CHEMISTRY.

FIRST CLASS.

Adeney, Edwin Leonard (Exhibition and Gold Medal) Guy's Hospital.
† Lane, William, Guy's Hospital.
Lukis, Charles Pardey, St. Bartholomew's Hospital.

SECOND CLASS.

Udale, Joseph James, Guy's Hospital.

THIRD CLASS.

Eq. { Prothero, Richard, Liverp. Sch. of Med. and Guy's Hosp.
Eq. { Sisley, Richard, St. George's Hospital.

MATERIA MEDICA AND PHARMACEUTICAL CHEMISTRY.

FIRST CLASS.

Barron, Alexander (Exhibition and Gold Medal), Owens College and Liverpool Royal Infirmary.
* Daniell, Alfred, Universities of Edinburgh and Paris.
Maddison, William Thomas, King's College.

SECOND CLASS.

Eq. { Dawson, Arthur George, Owens College.
Eq. { Rogers, James Macdonald, Middlesex Hospital.
Stonham, Thomas George, London Hospital.
Bull, George Coulson Robins, St. Mary's Hospital.
Fielden, William Eckett, Guy's Hospital.

* Obtained the number of marks qualifying for the Exhibition.
† Obtained the number of marks qualifying for a Medal.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Aug. 28th:—

Brown, James, Reading.
Gaylor, Norman Edward Johnson, Belper, Derbyshire.
Hutton, Henry Richardson, Epsom, Surrey.
Jones, Richard Thomas, Portmadoc.
Sanders, John William, Trowbridge.
Stilwell, Samuel Dilling Court, King-street, Wigan.
Taylor, Wm. Chas. Everley, South Cliff, Scarborough.
Veale, William Edward, Plymouth.

The following gentlemen on the same days passed the Primary Professional Examination:—

Charles Frederick Harper, Charing-cross Hospital; Fredk. Wakefield, Doyle Henslow, and Arthur Edwin Mason, St. Thomas's Hospital; John Hepburn, Westminster Hospital; Robert Edward Rygate, London Hospital.

DR. JAMES R. STEDMAN has been placed on the Commission of the Peace for the borough of Guildford.

THE Local Government Board have intimated their intention to issue an order for dissolving the Radford Union from the 25th March next, and annexing the parishes comprising it to the Nottingham Union.

THE Dublin Town Council have recommended to the Public Health Committee the propriety of providing a public abattoir for Dublin, and instructed the committee to prepare an estimate and scheme for that purpose.

THE Board of Management of the Royal Berks Hospital have decided upon increasing the medical staff of the hospital by the appointment of two additional medical officers. There are already four candidates in the field.

THE deaths registered in London last week numbered 1391, and included 7 from small-pox, 44 from measles, 59 from scarlet fever, 13 from diphtheria, 43 from whooping-cough, 13 from various forms of fever, and 209 from diarrhœa. The death-rate was 20·0 per 1000 per annum, against 19·1 in the preceding week. Diseases of the respiratory organs, to which 149 deaths were attributed, were less fatal than in the week ending the 23rd ultimo.

DUBLIN MAIN-DRAINAGE.—A meeting of the Corporation of Dublin has been fixed for this week, to discuss what steps should be taken as to the question of main-drainage and the purification of the river Liffey.

QUEEN'S COLLEGE, BELFAST.—During the past session the students in attendance at this college numbered 500, of whom 324 were in the faculty of medicine. There has been an increase of 37 on the previous session, and an increase of 125 during the last five years.

THE Wakefield Guardians have increased the salary of Mr. William S. Mackenzie, as medical officer for the Normanton and Sharlstone districts, from £13 to £48 per annum.

BEQUESTS ETC. TO MEDICAL CHARITIES.—The Leicester Infirmary has received £1000 under the will of Mrs. Brook, of Enderby Hall. Mr. William Dent has given £100 to the Charing-cross Hospital. Mr. Joseph Beevers, of Oldham, has given £1000 invested stock in the Bradford (Yorkshire) Corporation to the Infirmary of the latter town, of which he is a native. Mr. John E. Ralli, of Gloucester-place, Hyde-park, bequeathed £500 to St. Mary's Hospital. The Rev. Sir Edward Repps Joddrell, Bart., has given £100 to the Central London Throat and Ear Hospital, Gray's-inn-road. Mr. Alderman G. Watson, of Preston, bequeathed £1000 each to the Royal Albert Asylum for Idiots at Lancaster, and the Preston Infirmary.

Medical Appointments.

ALDRIDGE, J. H., M.D., M.R.C.S.E., has been appointed a Medical Officer to the Loyal Princess Royal Lodge of Odd Fellows, Manchester Unity, Southampton.

ASH, T. L., L.R.C.P.Ed., M.R.C.S.E., has been reappointed Medical Officer of Health for the Holsworthy Rural Sanitary District, at £30 for one year.

BALLANCE, C. A., M.R.C.S., has been appointed Assistant House-Surgeon to St. Thomas's Hospital.

BAYLIS, C. O., M.D., has been appointed Medical Officer of Health for the Bromley, Cranbrook, Maidstone, Malling, Sevenoaks, Tenterden, and Tonbridge Rural, and Beckenham, Bromley, Sevenoaks, Tenterden, and Tonbridge Urban, Sanitary Districts, at £800 per annum, for three years.

BLYTH, A. W., M.R.C.S.E., L.S.A.L., has been reappointed Medical Officer of Health for the Bideford and South Molton Rural Sanitary Districts.

BOLTON, R., M.D., C.M., has been appointed Certifying Factory Surgeon for the District of Bangor, co. Down.

BOWRING, G., F.R.C.S.E., L.S.A.L., has been appointed Consulting Surgeon to the Manchester Royal Infirmary, on resigning as Surgeon.

CARTER, R. W. F., L.R.C.P.Ed., L.F.P.S.G., has been appointed Medical Officer and Public Vaccinator for the Dunster District of the Williton Union, and Medical Officer of Health for the Dunster Sub-district of the Williton Rural Sanitary District, vice Stockwell, resigned.

CROFT, F. J., L.R.C.P.Ed., M.R.C.S.E., has been appointed Medical Officer to the Allenheads Medical Club, by Allendale, Northumberland, vice Roberts, resigned.

DANIEL, J., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Resident Assistant Medical Officer to the Crumpsall Workhouse, Manchester, vice Magill, resigned.

DAVIES, D. S., M.R.C.S., L.S.A.L., has been appointed House-Surgeon to St. Thomas's Hospital.

DOWNES, A. H., M.D., San. Sci. Cert. Cantab., has been appointed Medical Officer of Health for the Chelmsford and Maldon Rural Sanitary Districts, at £600 per annum for three years, vice Fox, whose appointment has expired.

GOYDER, C. McIvhor, L.R.C.P.L., M.R.C.S.E., has been appointed House-Surgeon to the Sheffield General Infirmary, vice Laver, resigned.

GROOME, W. W., M.B., M.R.C.S., has been appointed House-Physician to St. Thomas's Hospital.

HAYMAN, H., F.R.C.S.E., L.S.A.L., has been reappointed a Medical Officer of Health for the Wycombe Rural Sanitary District, at £35 per annum, till June 24th, 1880.

JOHNSON, C. J. B., L.R.C.P.Ed., L.F.P.S.G., has been appointed Medical Officer and Public Vaccinator for the Kirkby-Overblow District of the Wetherby Union, Yorkshire, vice Haxworth, resigned.

KELLY, J. D., L.R.C.P.Ed. & L.M., L.R.C.S.I., has been appointed Certifying Factory Surgeon for the District of Mullingar, co. Westmeath.

KIRSOPP, T., M.R.C.S.E., L.S.A.L., has been appointed Assistant House-Surgeon to the Sheffield General Infirmary, vice Hallam, resigned.

MACLAREN, J. D., M.D., has been reappointed a Physician to the Glasgow Royal Infirmary.

MARTIN, T. M., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer, Public Vaccinator, &c., for the Piltown Dispensary District of the Carrick-on-Suir Union, at £100 per annum and fees, and £20 per annum as Medical Officer of Health, vice O'Meara, deceased.

MORTON, J., M.D., L.R.C.S.Ed., has been reappointed a Surgeon to the Glasgow Royal Infirmary.

MURPHY, G. W., M.B., C.M., has been appointed Medical Officer for the Dunstable District of the Luton Union, vice Hicks, resigned.

NEWSHOLME, A., M.R.C.S., has been appointed Assistant House-Physician to St. Thomas's Hospital.

NORTON, T. C., M.R.C.S.E., L.S.A.L., has been appointed a Surgeon to the Bristol Hospital for Sick Children, vice James, deceased.

O'CONNOR, T., F.R.C.S.E., has been appointed Medical Officer of Health for the March Urban Sanitary District, at £30 for one year.

PEARSON, T. R., M.D., has been appointed Medical Officer to the Thornaby Iron Works, South Stockton-on-Tees, Yorkshire, vice Laidler, deceased.

PRITCHARD, S. E., M.R.C.S.E., L.S.A.L., has been appointed Medical Resident to the Tower Hamlets Dispensary.

RICHARDS, T., M.B., C.M., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer for the Edgbaston District of the King's Norton Union, vice Potts, resigned.

SCOTT, G., M.D., M.R.C.S.E., has been appointed a Medical Officer to the Loyal Princess Royal Lodge of Odd Fellows, Manchester Unity, Southampton.

SHAW, J., M.R.C.S., L.S.A.L., has been appointed Assistant House-Physician to St. Thomas's Hospital.

SMITH, R. P., L.R.C.P., M.R.C.S., has been appointed House-Physician to St. Thomas's Hospital.

TAKAKI, K., L.R.C.P., M.R.C.S., has been appointed Resident Accoucheur to St. Thomas's Hospital.

THURNAM, F. W., M.B., C.M., has been appointed Assistant Medical Officer to the City and County Lunatic Asylum, Stapleton, near Bristol, vice Levinge, resigned.

UHTHOFF, J. C., M.B., M.R.C.S.E., has been appointed House-Surgeon to the Sussex County Hospital, vice Smith, resigned.

WARREN, T., M.R.C.S.E., L.S.A.L., has been reappointed a Medical Officer of Health for the Wycombe Rural Sanitary District, at £35 per annum, till June 24th, 1880.

WATKINS, S. C., M.R.C.S.E., has been appointed Resident Medical Officer to the Poplar Hospital for Accidents, vice Hughes, resigned.

WELCH, R., L.R.C.P.Ed., M.R.C.S.E., has been appointed a Medical Officer to the Loyal Princess Royal Lodge of Odd Fellows, Manchester Unity, Southampton.

WEST, J. G. U., L.R.C.P.L., M.R.C.S.E., has been appointed Medical Officer to the Stoke-upon-Trent Workhouse, vice Garner, resigned.

WHITEHEAD, W., F.R.C.S.Ed., L.S.A.L., has been appointed a Surgeon to the Manchester Royal Infirmary, vice Bowring, resigned.

WILLIAMSON, R. J., M.A., M.R.C.S., L.R.C.P., has been appointed House-Surgeon to St. Thomas's Hospital.

Births, Marriages, and Deaths.

BIRTHS.

ANDERSON.—On the 28th ult., at Spennymoor, the wife of Robert S. Anderson, M.B., of a son.

BRODRIBB.—On the 26th ult., at Hastings, the wife of Charles Alkin Brodribb, M.R.C.S.E., of a son.

DALTON.—On the 26th ult., at South Norwood, the wife of Benjamin Neale Dalton, M.D., of a daughter.

FEGAN.—On the 30th ult., at Charlton, the wife of Richard Fegan, M.D., of a daughter.

HANNAN.—On the 30th inst., at Avonside, Downton, Wilts, the wife of Francis J. Hannan, M.D., of a son.

LUPTON.—On the 25th ult., at Stratford-upon-Avon, the wife of Harry Lupton, L.R.C.P.L., of a daughter.

PARRY.—On the 1st inst., at Ashley-road, Bristol, the wife of John Henry Parry, L.R.C.P.Ed., of a daughter.

SAMPSON.—On the 22nd ult., at Painswick, the wife of Henry M. Sampson, L.R.C.P.Ed., of a daughter.

SAUNDERSON.—On the 26th ult., at Springfield Lodge, Philipstown, King's County, the wife of Robert Saunderson, M.D., of a son.

TAYLER.—On the 24th ult., at Lewisham High-road, the wife of Francis Thomas Tayler, M.B., of a daughter.

MARRIAGES.

DAVIES—LEWIS.—On the 2nd inst., at Newport, Mon., by the Rev. J. W. Lance, George Augustus Davies, L.R.C.P.L. & M.R.C.S., of Newport, second son of W. J. Davies, Esq., J.P., F.R.C.S., of Penner House, near Newport, to Amy, second daughter of Ebenezer Lewis, Esq., J.P., of Maindee Hall, near Newport.

REID—ROBB.—On the 27th ult., at 96, South Portland-street, Glasgow, by the Rev. James R. Houston, of Langside U. P. Church (cousin of the bride), John Reid, M.D., of Crook, Durham, to Annie Smith, daughter of the late Mr. J. S. Robb.

SMITH—BORTON.—On the 28th ult., at the Parish Church, Stockton-on-Tees, by the Rev. Thos. Law, Vicar of St. James's, assisted by the Rev. F. A. Borton, Vicar of St. Paul's (brother of the bride), Tom Smith, Esq., M.R.C.S., L.R.C.P., of Caistor, Lincolnshire, to Cassie Emily, only daughter of the late W. Borton, Esq., Solicitor, of Andover.

DEATHS.

BROAD.—On the 30th ult., at Laurel-grove, Anerley, James Broad, M.D., aged 42.

CARNLEY.—On the 24th ult., at his residence, 1, Charlotte street, Hull, Henry Carnley, M.D. Lond., aged 50.

DUKE.—On the 25th ult., at Fairley Villa, Putney, S.W., Lilly Ellen Mellersh, the infant daughter of Stephen and Harriet Elizabeth (Lilly) Duke.

NORMAN.—On the 29th ult., at Colchester, John Norman, M.R.C.S.E., aged 69.

RUSSELL.—On the 27th ult., at Herbert House, Denmark-hill, William Smyth Russell, M.R.C.S.E.

N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*

Notes, Short Comments, and Answers to Correspondents.

THE STUDENTS' NUMBER OF THE LANCET will be published on Saturday next, Sept. 13th. Those gentlemen holding official situations connected with Medical Institutions in the United Kingdom, who have not yet forwarded the necessary information to our Office for publication in that number, are earnestly requested to send it *without the delay of a single post.*

YAWS IN DOMINICA.

WE have been favoured with a copy of the third report by Dr. H. A. A. Nicholls, Medical Superintendent of the Yaws Hospitals in Dominica, where during the last few years the disease has attacked so many of the families of the peasantry as to occasion considerable alarm in the island. At the time of Dr. Nicholls' appointment, in April, 1877, two hospitals were in existence. Soon afterwards another hospital (the Central) was erected, to which were transferred the patients in the other institutions, which were then finally closed. Altogether 970 patients appear to have been admitted to these hospitals, of which number 766 were discharged, cured with few exceptions; 55 absconded; 40 died; and 109 remained under treatment on Dec. 31st, 1878. In that year two constables were appointed, whose duty it was to collect patients affected with yaws, to keep a surveillance on those persons discharged cured, so as to detect any fresh attack of the disease, and to obtain information concerning the malady and sufferers from it. From calculations made upon the readmissions to hospital, it would seem that 5·7 per cent. are liable to a second and 0·4 to a third attack of yaws. Dr. Nicholls rejects the theory of bad and defective diet and non-observance of sanitary laws being capable of originating *de novo* an outbreak of the disease, and holds that it can be produced only by infection from an antecedent case, though the mode of living of the inhabitants of Dominica may be a predisposing cause. The minimum period of incubation would appear to be from seven days to two weeks; the maximum is uncertain. The disease is not hereditary, according to the author's opinion, and is more common among coloured than fair-skinned people. It is not very fatal, if patients be properly treated from the first. The treatment generally adopted at the Central Yaws Hospital is to administer sulphide of calcium, or sulphur and cream of tartar, until the crusts commence to fall, when a mixture containing iodide of potassium is given; whilst arsenic is found to be useful in chronic cases. Dr. Nicholls sees no reason to doubt that the efforts now being made, if continued for a sufficiently long period, will be effectual in ridding Dominica of the loathsome malady.

W. R.—See the Appendix to the Report on the Sanitary Condition of the Army by the Royal Commission presided over by Lord Herbert, and THE LANCET for the last ten years.

Mr. A. Conan Doyle.—It is a very old-fashioned and tried remedy.

GUACO.

To the Editor of THE LANCET.

SIR,—In answer to your correspondent's appeal for information on this subject, I would refer him to Trousseau and Pidoux' "Traité de Thérapeutique," and also to Dr. Neale's invaluable "Medical Digest." Guaco is obtained from about sixty different plants of the genera Mikania, Eryngium, and Aristolochia. The best would appear to be the flower of either the Mikania guaco or of the Eupatorium saturæifolium. The natives of the West Indies and of Central and South America credit these with the power of preventing and of curing snake-bite. Humboldt and Bonpland bear witness to their efficacy.

Guaco does not seem to have been recommended for any specific action in epithelioma, but, as it contains tannin, and is said to be a tonic, it may be classed amongst cancer remedies in the same category with condurango. As regards its use in other diseases, I would again refer those who may wish for information to the "Medical Digest."

Allow me now to give your correspondent a "tip" about epithelioma. Excision is of course the best treatment when feasible; but where this cannot be done, a *saturated* solution of chlorate of potash forms an excellent application. This was first recommended, I believe, by Ledeschi in 1845, and has since been experimented with by Bergeron, Le Blanc, Blondeau, Féréol, and others. Milton and Cooke published the first two cases of cure by this means in man; there is therefore nothing new in the treatment. Mention of it is made in most text-books of surgery, but I wish to insist upon the fact that it *is* serviceable. A few weeks since Professor Broca showed me a patient with an epithelial growth surrounding and involving both lips, which had been modified most satisfactorily by saturated chlorate of potash solution dressings.

I remain, Sir, yours truly,

August, 1879. FLANEUR.

PRISON DIETARY.

IN a late number we referred to the case of Patrick Grimes, who recently died in Armagh Gaol, and stated that Dr. Palmer, the medical officer was of opinion that the new scale of dietary adopted by the Prisons Board is insufficient. As an illustration bearing on this subject, we may now mention that Margaret Girvan, aged forty-nine, was committed to the same gaol on the 3rd of July last, that she became ill on the 20th of August, and died six days afterwards. An inquest has been held, and a verdict returned to the effect that the deceased died of hectic fever in a shattered constitution, the jury adding that the very low scale of diet which she received in the prison from the day of her committal had a great deal to do with the result, and they recommend the General Prisons Board to improve the prison dietary.

A. A. B. — The soft side is generally preferred; but the particular case must determine.

Dr. C. Fleming.—We cannot comply with our correspondent's request.

EXTENSIVE LESION OF THE BASE OF THE SKULL AND BRAIN.

To the Editor of THE LANCET.

SIR,—I send you the following account of a case of extensive lesion of the base of the skull and brain, with very slight comparative symptoms, thinking it may be of interest.

Wm. —— was admitted into the West London Hospital on Saturday, Aug. 16th, at 12 P.M., under the care of Mr. Morgan, having fallen off the box of a high break. He was perfectly insensible, not being roused by any means; was very cold and collapsed; was bleeding freely from the left ear and nostrils, and slightly from the right ear; his breathing was quiet, and his pupils very slightly dilated. There was no sign of paralysis, and no bruising.

Sunday. — The discharge from the left ear was evidently serous, that from the right continuing bloody. Pupils equal, unaffected by light. Towards evening his breathing became stertorous.

Monday. — Breathing more stertorous; pulse full and slow; pupils equal, though slightly contracted; discharge from left ear still serous, and in quantity; no paralysis. About 5.45 P.M. his face became livid, and at 6.15 he died, having been perfectly insensible the whole time, with no symptom of paralysis.

On post-mortem examination, I found the left temporal muscle infiltrated with effused blood, and a fracture involving the squamous portion of the left temporal bone and the anterior inferior angle of the left parietal. On removing the skull-cap, the left middle meningeal artery was found torn across, and a large quantity of blood effused both into the brain-substance of the left hemisphere and also between the dura mater and bone, the dura mater being stripped off to a considerable extent. The fracture was traced from the left temporal bone through the left petrous portion, running through the sella turcica and into the petrous portion of the right temporal bone. The posterior clinoid processes of the sphenoid were completely detached, and the upper wall of the left petrous portion was comminuted.

I quote this case as showing the existence of serious lesion of the base of the skull and considerable effusion of blood into the brain, with absolutely no symptoms to warrant operative interference, though, had he been trephined, the chances are that the artery would have been secured.

I remain, Sir, faithfully yours,

GEO. W. HAMILTON CUMMING, House-Surgeon.

Hammersmith, Aug. 21st, 1879.

HOW SHALL I PAY THE DOCTOR'S BILL?

M.D.—Our correspondent has hit upon the chief fault, if not the only fault, of the scheme of the West Cheshire Provident Association Though advanced as intended mainly for the benefit of the working classes, there is no satisfactory precaution provided for the exclusion of unfit persons or even classes. We hope the promoters will see to the rectification of this fault in their scheme. It would be a pity to demoralise one class by trying to increase the providence and moral sense of another.

A Constant Reader.—The publication of our correspondent's letter would subject us to an action for libel. The matter is best left alone.

THE LOWEST-TENDER SYSTEM IN MEDICAL APPOINTMENTS.

To the Editor of THE LANCET.

SIR,—Having just seen an advertisement announcing the requirement of a house-surgeon and a head nurse at the Cornwall Infirmary, the salary acceptable to be mentioned by any candidate who may apply, allow me to ask whether you or any of your readers can throw any light upon the matter? Why is there no fixed salary offered? Are the duties, perhaps, intended to be performed by the same individual? I should feel greatly indebted to anyone who would inform me at what salary a properly qualified *gentleman* could conscientiously undertake the duties of the single office of house-surgeon, which is the only post I myself should care for. Is this style of touting for the lowest tender for medical work never to be checked by our profession—a profession vainly lauded in the senate and glorified from the academic chair, while daily such and other degradations are heaped upon it?

I enclose my card and am, Sir, yours faithfully,

August 25th, 1879. THUNDERSTRUCK.

MONSTRUM HORRENDUM.

A. Z.—There is, as far as we know at present, no means of deciding the question; but it would appear that such a creature did exist. A detailed account is given by George Buchanan in his History of Scotland, book xiii., chap. vii. King James IV. (Scotland) is stated to have taken a great deal of interest in the case. This is Buchanan's account, taken from Dr. James Taylor's History of Scotland, vol. i., p. 557:—"In the lower part of its body it resembled a male child, nothing differing from the ordinary shape of the human frame; but from the waist upwards it had two bodies, male and female. The King gave special order for its careful education, especially in music, in which it arrived at an admirable degree of skill; and, moreover, it learned several tongues, and sometimes the two bodies did discover several appetites disagreeing one with another, and so they would quarrel, one liking this, the other liking that; and yet sometimes again they would agree, and consult, as it were, in common for the good of both. This was also memorable in it, that when the legs or loins were hurt below, both bodies were sensible of this pain in common; but when it was pricked or otherwise hurt above, which difference was also more perspicuous in its death, for one of the bodies died many days before the other, and that which survived, being half-putrefied, pined away by degrees. This monster lived twenty-eight years, and then died when John (Duke of Albany) was Regent of Scotland" (about 1515). In order apparently to remove any doubt as to the truth of his statement, Buchanan expressly adds: "I am the more confident in relating this story, because there are many honest and credible persons yet alive who saw the prodigy with their eyes."

X. Y. Z.—The M.B. degree does not convey the title of "Doctor," or entitle the graduate to assume it.

Charles E. Walker should consult his legal adviser.

WINTER HEALTH RESORTS.

To the Editor of THE LANCET.

SIR,—Notwithstanding the various letters and more full statements which from time to time have appeared in THE LANCET relating to numerous winter health resorts, some further detail, with practical hints and recent experiences, will, I have good reason to know, be of high interest. I refer specially to those of us who have to do with patients of more or less broken constitutions, enfeebled by tropical service, painfully sensitive to cold and change of weather, unable to stand bracing; skin generally, mucous membranes, &c., relaxed and irritable; cold in some form, catarrh, bronchitis, congestion of liver or kidneys, or both, being an almost constant experience on any trifling exposure, tending still further to lower health and favouring congestion of weakened organs by precluding open air exercise without risk during the cold months from January to June. Military officers for the most part, whether on full pay or retired, are ill able to afford long and expensive railway journeys, hotel bills, and the numerous contingencies; it will, therefore, be of value to state the actual and *necessary* cost, comparatively, of hotels, boarding-houses, say for a married couple or with two children, living as inexpensively as is compatible with respectability. A few lines respecting Tasmania also will be appreciated, including the best time to set out with a view to a fairly quiet voyage, both by sailing-ship and steamer, a pleasant time of year for reaching Hobart Town, a few particulars as to the different seasons, cost of living in quiet boarding-houses or hotels, furnished or unfurnished houses, in or near the town.

I am, Sir, yours faithfully,

August, 1879. ARMY MEDICAL OFFICER.

California. — Bowman's Practical Chemistry, including Analysis by Bloxam, and Bowman's Medical Chemistry, edited, we believe, by the same editor. Heath and Godlee's Plates, and Sibson's Medical Anatomy. For the Materia Medica Cabinet we should refer our correspondent to the Pharmaceutical Society, or to a maker of such things, such as Filmer Kidston, Duke-street, Bishopsgate.

CLUBS.

To the Editor of THE LANCET.

SIR,—I have kept a pretty accurate account of work and outgoings in connexion with my club practice in a scattered country district, and I find that four shillings a year per member, which is the usual fee here, does not cover the outlay in drugs, horseflesh, &c., after giving my time and labour for nothing. I am quite ready to do my part for those who are unable to help themselves, but in two of my clubs there are men who rent upwards of one hundred acres of ground, others who own house property, are in good positions, and certainly no objects for my charity.

It is possible clubs may not be the loss in town practice, where little or no horse and carriage expenses are required, that they are in the country. My object in writing to you, Sir, is to solicit, through your widely-circulated journal, the opinion of my professional brethren as to what limit it is desirable to make as to position and income of members, and also what fee it is usual to accept from such clubs as the Odd Fellows and Foresters. I shall be grateful for any hints on these points, and beg to subscribe myself your obedient servant,

August 25th, 1879. Z.

MORTALITY OF PAUPER CHILDREN IN DUBLIN.

DR. M'CABE, of the Local Government Board, has very properly brought under the notice of the North Dublin Union the high mortality of orphan and deserted children sent out to nurse. The rate of mortality of such children under one year of age is 39½ per cent. Dr. M'Cabe attributes much of it to the practice of sending children to be wet-nursed in the country by a mother who has her own child also to nurse, which naturally has the preference. It was resolved to ask the medical officers of the union to report on this system, and on the alternative of feeding them by the bottle in the house. We shall be pleased to see the report.

Dr. Kartuly, (Alexandria.)—We have no knowledge of the paper. It could not have come to hand.

"EFFERVESCING DRINKS AND THEIR EFFECTS."

To the Editor of THE LANCET.

SIR,—Will you kindly allow space in your columns to correct an impression which must have been made on the minds of your readers with respect to the india-rubber bands and stoppers used in the mineral water trade.

The discussion now going on in the *Morning Advertiser* tends to bring the conscientious manufacturer into serious trouble and loss without the slightest reason. This arises from the fact that the public press is by no means a proper channel for discussing scientific subjects relating to trade.

I would offer a piece of friendly advice to those who have now turned the matter into that of the rival claims of rubber and cork, to look into their own materials before throwing wholesale discredit on india-rubber as regards lead contamination. Under the above heading appeared a letter in your issue of August 9th, very properly calling the attention of the profession to some important facts. Any statement emanating from THE LANCET carries such weight in the popular mind that a misunderstood report might lead to very serious consequences. I do not wish for a moment to discredit your correspondent. I propose to examine his statements with a view of giving some explanation, which certainly is demanded when we consider how much lead must have been present to give the results he obtained. He detected acetate of lead. Now if carbonate or oxide of lead were present, it is easy to understand that the acetic acid which is now largely used in the water trade may have produced a little of this substance, but certainly not sufficient to have given the turbidity in the rinsings out of the bottle with brandy and alcohol when water was added. If acetate of lead had been incorporated with the rubber, and the brandy allowed to remain in contact with it a short time, it is possible it would have been dissolved out. Now I am not aware that acetate of lead is used in this way by india-rubber manufacturers, nor can I understand how an accident may have led to using sugar of lead for any other lead compound, as carbonate or oxide, *all of which should be avoided*. Most people in designing cheap substitutes rarely trouble themselves with the serious side of the question. I believe your correspondent came across a cheap substitute for a good rubber article in the way of a stopper, which, being a compound of resinous matter &c., was slowly dissolved by the alcohol, which would have become milky on the addition of water with the coloration he mentions. I think the effect of the colouring matter of the brandy on the sugar of lead, if present in sufficient quantity to produce milkiness when diluted with water, would have attracted his attention before adding water to it.

The presence of sugar of lead, even in small quantities, is an alarming statement, and so seriously has this proved that the India-rubber, Gutta-percha, and Telegraph Company will be compelled to give their manufacture some distinguishing mark, which it is hoped will be a guide to the public, and a guarantee of freedom from all mineral matter capable of dangerously contaminating water. The India-rubber, Gutta-percha, and Telegraph Company, Silvertown, have for some years past been the largest manufacturers of these rings and stoppers, and I feel confident that none of them have ever been sent out from which any effect could be produced in alkaline or acid liquids. The rings are carefully deprived of taste and smell, so that the objections which are sometimes urged on these points are absolutely groundless.

I am, Sir, yours &c.,

THOS. T. P. BRUCE WARREN,
Analytical Chemist to the India-rubber, Gutta-percha, and Telegraph Works Company, Silvertown and London.

August, 1879.

To the Editor of THE LANCET.

SIR,—My attention has been drawn by the letter of "W." on Aerated Drinks and their Effects, published in THE LANCET of last week, to that on the same subject which appeared in your issue of Aug. 9th.

Calling on a gentleman to-day, he asked me to look at two very fine samples of brandy sent him by a well-known merchant, and showed me two glasses in which he had mixed a little out of each of the samples with soda-water from an ordinary syphon with metal top. The mixture was of a greenish hue, somewhat resembling that of a solution of tincture of digitalis. On pouring out a little myself, I observed that at first the mixture was of the normal colour of a "B. and S.," but, on standing for a little, it gradually became darker and darker till it attained quite a green colour. We satisfied ourselves that this was due to something in the soda-water or in the syphon, and not in the brandy.

Perhaps some of my fellow-readers will be able to inform me to what this was due, and oblige Yours obediently,

August, 1879. ANOTHER "W."

A NEW MATERIAL FOR PAPER MANUFACTURE.

DR. CAMERON, of Dublin, some time since read a paper before the members of the Royal Dublin Society on a species of grass which grows in large quantities in various parts of Ireland and Scotland. It is the red Melac grass (*Cærulia molinea*), and is peculiar for containing but a mere trace of mineral matter and for being free from silica, while its chemical composition seems to show that it is well adapted for the manufacture of paper. Some of the grass, it is stated, has been made into paper by Mr. Routledge, of Sunderland, who reports most favourably, and believes that if properly dried it will be worth £5 a ton, the price given for Espartero grass.

Salso will find several letters, containing the information he seeks, in THE LANCET for May 24th and 31st and June 14th of the current year.

THE ORIGIN OF TYPHOID FEVER IN SOME ISOLATED CASES.

To the Editor of THE LANCET.

SIR,—As typhoid fever frequently occurs in country districts in isolated cases, and as sometimes there is some difficulty in ascertaining the original cause of the outbreak, I was induced some little time since to investigate as far as I could the cause of the disease in a number of cases then occurring in the Fen district in Lincolnshire. I had previously had a great many cases of the like nature under treatment in Hampshire, Berkshire, and Devonshire, and it interested me to ascertain whether the same causes apparently were at work. Now, as these cases were purely isolated ones, there having been no chance of the poison having been imported, and there being no actual epidemic at the time, the cause of the disease had to be discovered in the habitation of the patient. The first thing to investigate was, of course, the closet and drainage arrangements in respect to the water-supply, and then the water-supply itself. In some cases the old story obtained. The drinking water was contaminated by the drainage, and the cause of the outbreak at once accounted for; but in many instances this was not the case, and another source of mischief had to be discovered, and this other source is, I think, the most frequent one in some districts, more especially in Lincolnshire. It is the presence of decomposing vegetable matter in the drinking water. This I have found to be the cause of typhoid in cases where there was no chance of any other source of infection. A well was in one case in Derbyshire many yards from the cottage, and situated in a copse, but full of decomposing leaves and other vegetable refuse. In another case in Lincolnshire the drinking water was procured from a sluggish drain at least sixty yards from the cottage of the patient, and, moreover, cut off from any chance of drainage contamination by a roadway. This drain was full of decomposing vegetable matter in the form of dead weed, leaves and twigs of trees; and in several other cases I had an opportunity of observing I found apparently the same cause, because in each case the water-supply was a drain remote from the habitations, and, as before remarked, full of the products of decomposing vegetation. It is not unreasonable to suggest that, as malarial fevers are caused by gaseous emanations from decomposing vegetable products, typhoid fever may be caused by the same or similar proceeds of decomposition taken in solution in drinking water. At any rate, in the cases referred to this appeared to be the only source.

Yours truly,

Pembridge-square, August, 1879. HENRY B. DOW, M.D.

H. P.—The qualification is only a surgical one, and does not justify the titles "physician and surgeon." The guardians can appoint persons with but one qualification under certain circumstances, and with the consent of the Local Government Board. The Apothecaries' Company do not generally prosecute in the case of persons having a qualification.

THE CITY OF DUBLIN SANITARY STAFF.

To the Editor of THE LANCET.

SIR,—On referring to the printed annual accounts of the Dublin Corporation for the years 1873-74 and 1876-77, I find that the Sanitary Department in 1873-74 cost £2699 14*s.* 8*d.*, and in 1876-77 £3185 18*s.* *d.*, an increase of £486 3*s.* 10*d*; the increase in the salaries of the sanitary staff was £651 14*s.* 5*d.*, a decrease having been effected in cleansing the Liffey, which in 1873-74 cost £152 2*s.* 1*d.*, in 1876-77 *nil*; flushing of sewers reduced from £18 11*s.* 4*d.* to £13 8*s.*; and the morgue expenses reduced by £36 19*s.* 10*d.* The principal increase was in sanitary police, £344 19*s.* 6*d.*; medical officers of health, £200; secretary, £50; and inspectors of nuisances, £50. Calculating the salaries of the sanitary police at £50 each, it would appear that in 1876-77 there were employed twenty-seven police constables, and as six have been since added, the number is now thirty-three; these, with two medical officers of health, four inspectors of nuisances, and one secretary, make up a staff of forty individuals. The present insanitary condition of Dublin cannot be attributed to a deficiency of staff or a want of remunerating funds. As the City of Dublin is about the same as Leeds in population and extent, although less in valuation, the excess of the staff and expenditure of the former cannot be easily accounted for.

I am, Sir, yours truly,

August 20th, 1879. A CITY OF DUBLIN RATEPAYER.

W. A. S.—The country is so healthy that no special drugs are required. Consult the Pocket Doctor for the Traveller and Colonist, published by Silver and Co, of Cornhill. Their pocket-case contains all that is required.

TREATMENT OF PROLAPSUS ANI.

DR. VIDAL recommends injection of a solution of ergotine for this purpose. The *Paris Médical* mentions three cases in which this method was employed. In one of these the prolapse, which had existed for eight years, yielded to the treatment in three months. In two other instances the cure was much more rapid. At the present time there is a woman under observation at St. Louis, who has been almost entirely cured by three injections. The contractions produced by the introduction of ergotine extend, as a rule, to the bladder, and give rise to spasm and dysuria.

A Sufferer should consult a practitioner.

EXECUTION OF CRIMINALS.

To the Editor of THE LANCET.

SIR,—Having read the letter of "Experimentalist" and the comments in the article on the mode of death in execution of criminals, in the *Daily Telegraph* of the 27th inst., I take the liberty of calling your attention to the subject, as being likely to interest members of the profession. That a person should be allowed "a drop" of eight or nine feet and the neck be not dislocated, appears to me to be subjecting him to an amount of torture which should never be necessary. Could there be no apparatus, or adjustment of the present apparatus, devised which would invariably dislocate the neck?—as a suggestion, a pad placed on the same side of the head as the rope, to jerk the head sideways at the moment the cord became tense. This is a subject I think might be advantageously discussed by experimental physiologists, and on human subjects after death. Surely, if anything could be done to mitigate the sufferings of a human being in this unfortunate position, the subject is worthy of the fullest investigation.—I am, Sir, yours truly,

August, 1879. E. G. W.

Enquirer.—There are no special expenses "connected with entering the army and living at Netley" except providing a suit of undress uniform on joining. There is a very good and inexpensive mess at which the probationers live, and they are provided with furnished quarters. There is a trifling charge made weekly for servants. An allowance of five shillings per diem has hitherto been given, but Lord Cranbrook's committee recommended that this should be increased to eight shillings. If this allowance be granted by the new Warrant it ought to be sufficient to cover all the probationer's expenses at Netley.

Adam Tibbit.—Certainly not.

CASE OF TRIPLETS.

To the Editor of THE LANCET.

SIR,—I was called to attend A. E——, aged thirty-eight, in her ninth confinement, at 10 P.M., August 9th, 1879. The patient informed me that she had "been in pain" since three o'clock that morning. I examined her, and found the os uteri fully dilated and dilatable; the head was presenting and the membranes protruding. The pains not being very efficient, I gave a dose of ergot, and shortly after another dose, but without much effect. I then ruptured the membranes, and the first child was born without much difficulty at 12 P.M. The head of a second child now presented itself at the brim, and after some little manipulation the long forceps were applied (the woman being weak and the pains inefficient), and the second child delivered. The hand of a third child was now detected on examination. In this instance podalic version was performed, one foot alone being brought down, and the third and last child was delivered at 2.30 A.M., two hours and a half after the first. There was some trouble in removing the placenta. Beyond an attack of syncope after delivery was complete, and which was relieved by a full dose of tincture of opium in some brandy, the woman has not had a bad symptom, and is now with the three children (all females) doing well.

Yours truly,

C. J. HARDY SMITH, M.B. Lond.

South Norwood, August 19th, 1879.

Dr. A. C. McRae, (Penicuik.)—We believe that the rule is, under the circumstances mentioned, and when it is not practicable to remove the cases, to close the school for a time. There are no regulations on the subject of which we are aware, and the medical man must use his own judgment in advising. If still in doubt, write to the Secretary of the Local Government Board, and ask for information as to the practice followed in similar circumstances.

DISEASES MENTIONED IN THE BIBLE.

To the Editor of THE LANCET.

SIR,—"Weekly Reader, M.D.," will find an interesting monograph on the subject he refers to in the second volume of Smith's Dictionary of the Bible. The title of the article is "Medicine"; and he will also find there a catalogue of several treatises on that and kindred subjects.

I am, Sir, yours faithfully,

Sept. 1st, 1879. A. B. B.

*** There are also Dr. Mead's article on the diseases mentioned in the Scriptures, and Hebra's notes on Leprosy in the New Sydenham Society's issue of his works on Skin Diseases.—ED. L.

M. B. asks for information of the best practical treatise on the mode of taking anatomical casts in wax and plaster of Paris. We do not know of any such work in the English language.

Mayhem.—The question should be proposed to the lecturer on chemistry.

CORONERS' INQUESTS AND POST-MORTEM EXAMINATIONS.

To the Editor of THE LANCET.

SIR,—I was called to see the body of a man who died suddenly yesterday morning. A few hours after I had returned home, the coroner's officer called and asked me if I could certify the cause of death without a post-mortem. As I cannot conceive an inquest being of the slightest use without a post-mortem examination, I replied in the negative. Imagine my astonishment when I was informed that another medical man was to attend the inquest and make the necessary *sectio cadaveris*. Is this not rather unusual, and what position does that gentleman occupy who thus takes the case?

A few comments from you I am sure would interest many members of the profession.

I am, Sir, yours faithfully,

August 26th, 1879. M.R.C.S.

OIL OF PEPPERMINT AS A LOCAL ANÆSTHETIC.

To the Editor of THE LANCET.

SIR,—Allow me to inform your correspondent, Mr. A. D. Macdonald, that as long ago as the 19th of November, 1870, I brought to the notice of the profession, through the pages of THE LANCET, the efficacy of oil of peppermint as a local application for the relief of pain, especially that of facial neuralgia and gout.

I have found the English essential oil quite as effective in its action as the Chinese. The only drawback to the use of the remedy is its strong, and to some persons objectionable, odour.

I am, Sir, yours obediently,

Finchley, Sept. 1879. ALFRED WRIGHT.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Sturges, London; Mr. Gamgee, Birmingham; Dr. Charteris, Dieppe; Messrs. Green and Anderson; Mr. Hopwood, Ashton-under-Lyne; Mr. Jones, West Bromwich; Mr. Startin, London; Dr. Chiappini, Cheltenham; Dr. Wright, Finchley; Mr. Jones, Birkenhead; Mr. Nightingale, Sidmouth; Mr. Henderson, Peckham; Dr. Foster, Birmingham; Dr. Duncan, Glasgow; Mr. Walker, Aldbrough; Messrs. May, Davis and Co., London; Mr. Mitchenon; Messrs. Burgoyne and Co., London; Mr. Holmes, London; Mr. Page, Macsteg; Mr. Uhthoff, London; Mr. F. A. Southam, Manchester; Mr. Pratt, Newtown; Dr. Allshorn, London; Mr. Hine, Sheffield; Mr. Strang, Penge; Dr. Helme, Liverpool; Mr. Doyle, Birmingham; Dr. Fleming, Worksop; Mr. Evans, Bridport; Mr. Kartull, Alexandria; Mr. Carruthers, Secunderabad; Mr. Berry, Wigan; Mr. Drinkwater, Edinburgh; Mr. W. P. Thornton; Mr. Couldrey, Scunthorpe; Dr. Hinemann; Dr. Kerr; Mr. Cullimore, Tunbridge Wells; Mr. Sibbit; Mr. Lister, London; Mr. Murray, London; Mr. King, Edinburgh; Dr. Ewart, Brighton; Mr. Hopkins, Bath; Dr. Ruedi, Davos; Mr. Gough, Liverpool; Dr. Phillips, Reading; Mr. Pearse, St. Austell; Mr. Abbott, Leicester; Surgeon-Major Whylock, Kandahar; Mr. Ward, Dublin; Mr. Hackney, Warbleton; Mr. Beard, Masterton, New Zealand; Mr. Birch; A. A. B. B.; Equality; X. Y. Z.; W. T. R.; A Surgeon; Student; Medicus, Bolton; Salvo; An Occasional Correspondent; T. M. H., Manchester; T. C. M.; An Old Contributor; A Constant Reader; A Sufferer; A General Practitioner; Y. Z., Tunbridge Wells; W. H.; Another W.; M.R.C.S.; Enquirer; A. B. B.; Capensis; E. G. W.; Nauticus; Honour to whom Honour is due; M. A. S.; &c. &c.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Reed, Windermere; Messrs. Douglas and Mason, Edinburgh; Messrs. Keith and Co., Edinburgh; Mr. Teasdale, Nenthead; Mr. Beck, Leamington; Messrs. Bowdler and Co., Accrington; Dr. Dickson, Buxton; Messrs. Sinclair and Hind, Halstead; Mr. Edwards, Henford; Mr. Dove, Sherburn; Mr. Wood, Stockton-on-Tees; Mr. Lys, Bere Regis; Mr. Freeman, Berkhampstead; Mr. Pattrick, Measham; Dr. Wallis, Cleckheaton; Mr. Deb, Mitcham; Mr. Kilburn, West Auckland; Dr. Waddell, Airdrie; Mr. Dowse, Huddersfield; Dr. Foote, Rotherham; Mr. Thomas, Scarborough; Mr. Wheeler, Ventnor; Mr. Barnett, Weston-super-Mare; Mr. Brown, Manchester; Mr. Fligg, Scarborough; Mr. Hopkins, Camberwell; Dr. Hannan, Avonside; Mrs. Williams, Hendon; Dr. Duke, Putney; Mr. Cox, Taunton; Mr. Stevens, Stoke Newington; Dr. Andrews, Shrewsbury; P. M., Aberdeen; Q. U. Q.; Academicus; A. B., Poplar; Medicus, High Ousegate; Medicus; Medicus, London; T., Hull; W. H., Wellingborough; Medicus, Stonebroom; Medicus, East Grove; M.R.C.S., Chesham; M.A.; R., Rochdale; A Graduate, Cambridge; Medicus, Mile-end; Triginti; Zut; Dispenser, Dartford; X. Y. Z.; M.R.C.S.; Birmingham; Delta, Great Yarmouth; L., Forest-gate; W. M.; Xama; A. R., Worcester; Medicus, Hexham; Mungo, Newcastle-under-Lyme; Alpha, Sheffield; R. W. H., Bloomsbury; J. T., Aberdeen.

Indian Medical Gazette, Daily Telegraph, Cork Examiner, Otago Times, Licensed Victuallers' Guardian, Colne and Nelson Times, Essex Weekly News, Madras Mail, Social Notes, Sentinel, Times of Natal, Runcorn Guardian.

METEOROLOGICAL READINGS.

(Taken daily at 8 a.m. by Steward's Instruments.)

THE LANCET OFFICE, Sept. 4th, 1879.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Dry Bulb	Wet Bulb	Solar Radia in Vacuo	Max. Temp Shade	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Aug. 29	29·77	W.	61	56	89	68	56	0·37	Cloudy
,, 30	29·98	W.	57	54	103	71	49	0·02	Overcast
,, 31	30·00	W.	61	56	104	69	51	..	Overcast
Sept. 1	30·30	N.E.	52	51	90	67	45	..	Hazy
,, 2	30·48	W S W	54	50	98	71	47	..	Hazy
,, 3	30·22	W.	58	53	105	73	47	..	Fine
,, 4	30·11	N.	53	52	91	70	47	..	Hazy

Medical Diary for the ensuing Week.

Monday, Sept. 8.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.
ST. MARK'S HOSPITAL.—Operations, 2 P.M., and on Tuesday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

Tuesday, Sept. 9.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 3 P.M.

Wednesday, Sept. 10.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at 1 P.M.
LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.

Thursday, Sept. 11.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

Friday, Sept. 12.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
QUEKETT MICROSCOPICAL CLUB.—8 P.M. Ordinary Meeting.

Saturday, Sept. 13.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

NOTICE.

In consequence of THE LANCET being frequently detained by the Post Office when posted for places abroad *more than eight days after* publication, subscribers and others are reminded that such copies can be forwarded only as book packets, and *prepaid* as such.

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